Algebra II
Lesson #4 Unit 5
Class Worksheet #4
For Worksheet #5

The Complex Numbers

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Consider these examples.

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The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

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The 'Square Root Property' is used to solve equations of the form $N^2 = k$. The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

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The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

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The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$

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The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

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1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$

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Consider these examples.

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$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

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Consider these examples.

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$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$

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These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

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These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

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$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

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The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$

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$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

$x - 2 = 3i$

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Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

$x - 2 = 3i$ or $x - 2 = -3i$

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1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

$x - 2 = 3i$ or $x - 2 = -3i$

$x = 2 + 3i$

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The 'Square Root Property' is used to solve equations of the form $N^2 = k$.
The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

$x - 2 = 3i$ or $x - 2 = -3i$

$x = 2 + 3i$ or $x = 2 + -3i$

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The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

$x - 2 = 3i$ or $x - 2 = -3i$

$x = 2 + 3i$ or $x = 2 + -3i$

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The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

$x - 2 = 3i$ or $x - 2 = -3i$

$x = 2 + 3i$ or $x = 2 + -3i$

These solutions are the sum of a real number

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The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

$x - 2 = 3i$ or $x - 2 = -3i$

$x = 2 + 3i$ or $x = 2 + -3i$

These solutions are the sum of a real number

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The 'Square Root Property' is used to solve equations of the form $N^2 = k$.
The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

$x - 2 = 3i$ or $x - 2 = -3i$

$x = 2 + 3i$ or $x = 2 + -3i$

These solutions are the sum of a real number and an imaginary number.

The Complex Numbers

The 'Square Root Property' is used to solve equations of the form $N^2 = k$.
The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

$x - 2 = 3i$ or $x - 2 = -3i$

$x = 2 + 3i$ or $x = 2 + -3i$

These solutions are the sum of a real number and an imaginary number.

The Complex Numbers

The 'Square Root Property' is used to solve equations of the form $N^2 = k$.
The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

$x - 2 = 3i$ or $x - 2 = -3i$

$x = 2 + 3i$ or $x = 2 + -3i$

These solutions are the sum of a real number and an imaginary number. They are complex numbers.

The Complex Numbers

The 'Square Root Property' is used to solve equations of the form $N^2 = k$.
The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

4. $(x - 2)^2 = -9$

$x - 2 = \sqrt{-9}$ or $x - 2 = -\sqrt{-9}$

$x - 2 = 3i$ or $x - 2 = -3i$

$x = 2 + 3i$ or $x = 2 + -3i$

These solutions are the sum of a real number and an imaginary number. They are complex numbers.

The Complex Numbers

The 'Square Root Property' is used to solve equations of the form $N^2 = k$.
The square root property states 'If $N^2 = k$, then $N = \sqrt{k}$ or $N = -\sqrt{k}$.'

Consider these examples.

1. $x^2 = 9$

$x = \sqrt{9}$ or $x = -\sqrt{9}$

$x = 3$ or $x = -3$

These solutions are real numbers.

2. $x^2 = -9$

$x = \sqrt{-9}$ or $x = -\sqrt{-9}$

$x = 3i$ or $x = -3i$

These solutions are imaginary numbers.

3. $(x - 2)^2 = 9$

$x - 2 = \sqrt{9}$ or $x - 2 = -\sqrt{9}$

$x - 2 = 3$ or $x - 2 = -3$

$x = 5$ or $x = -1$

These solutions are real numbers.

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$x - 2 = 3i$ or $x - 2 = -3i$

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These solutions are the sum of a real number and an imaginary number. They are complex numbers.

A <u>complex number</u> is defined to be <u>any number</u> that can be expressed in the form <u>a + bi</u> where <u>a</u> and <u>b</u> are real numbers and $i = \sqrt{-1}$.

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A complex number is defined to be any number that can be expressed in the form a + bi where a and b are real numbers and i = $\sqrt{-1}$.

Clearly, if b = 0, then the complex number a + bi is a real number.

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You have learned how to do many different 'things' with the real numbers.

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The Complex Numbers

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You have learned how to do many different 'things' with the real numbers. This includes graphing them, finding their absolute value, and performing the basic operations. You will be learning how to do the same 'things' with the complex numbers. We will begin by reviewing the subsets of the set of real numbers.

The Real Number System

The Real Number System Subsets of the Real Numbers

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The Natural Numbers:

The Real Number System **Subsets of the Real Numbers**

The Natural Numbers: $N = \{ 1, 2, 3, 4, \ldots \}$

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(These are also called the counting numbers.)

The Real Number System Subsets of the Real Numbers

The Natural Numbers: $N = \{ 1, 2, 3, 4, \dots \}$

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The Whole Numbers:

The Real Number System   Subsets of the Real Numbers

The Natural Numbers: N = { 1, 2, 3, 4, … }

(These are also called the counting numbers.)

The Whole Numbers: W = { 0, 1, 2, 3, 4, … }

The Real Number System   Subsets of the Real Numbers

The Natural Numbers: N = { 1, 2, 3, 4, … }

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The Whole Numbers: W = { 0, 1, 2, 3, 4, … }

The Integers:

The Real Number System   Subsets of the Real Numbers

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The Whole Numbers: W = { 0, 1, 2, 3, 4, … }

The Integers: I = { …, -4, -3, -2, -1, 0, 1, 2, 3, 4, … }

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The Rational Numbers:

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The Rational Numbers: Any number that can be expressed as the ratio of two integers is a rational number.

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As decimals, rational numbers are either terminating decimals or repeating decimals.

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The Rational Numbers: Any number that can be expressed as the ratio of two integers is a rational number.

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The Irrational Numbers: Any real number that can not be expressed as the ratio of two integers is an irrational number.

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As decimals, irrational numbers are non-terminating, non-repeating decimals.

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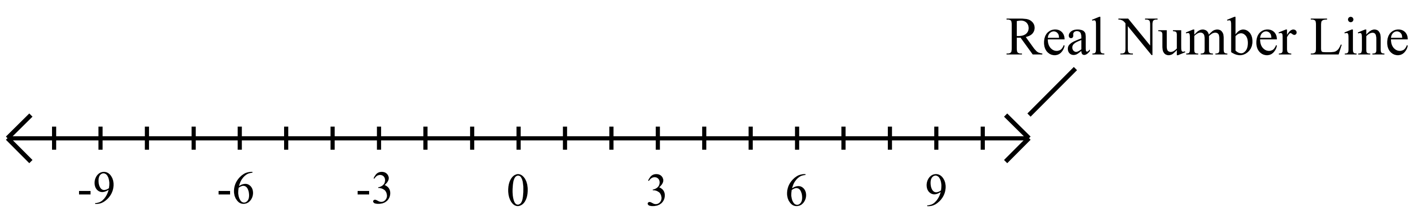
The set of Real Numbers can be represented by a number line.

The Real Number System



The Complex Number System

The Complex Number System

Subsets of the Complex Numbers

The Complex Number System

Subsets of the Complex Numbers

The Real Numbers

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Subsets of the Complex Numbers

The Real Numbers

The Imaginary Numbers

The Complex Number System

Subsets of the Complex Numbers

The Real Numbers

The Imaginary Numbers

Any number that can be represented in the form **bi**, where b is a real number and $i = \sqrt{-1}$, is an imaginary number.

The Complex Number System

Subsets of the Complex Numbers

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The Complex Number System

Subsets of the Complex Numbers

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The Complex Numbers

Any number that can be represented in the form **a + bi**, where a and b are real numbers and $i = \sqrt{-1}$, is a complex number.

The Complex Number System

Subsets of the Complex Numbers

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The Complex Numbers

Any number that can be represented in the form **a + bi**, where a and b are real numbers and $i = \sqrt{-1}$, is a complex number.

Note: If **a = 0**, then **a + bi** represents an imaginary number, and if **b = 0**, then **a + bi** represents a real number.

The Complex Number System

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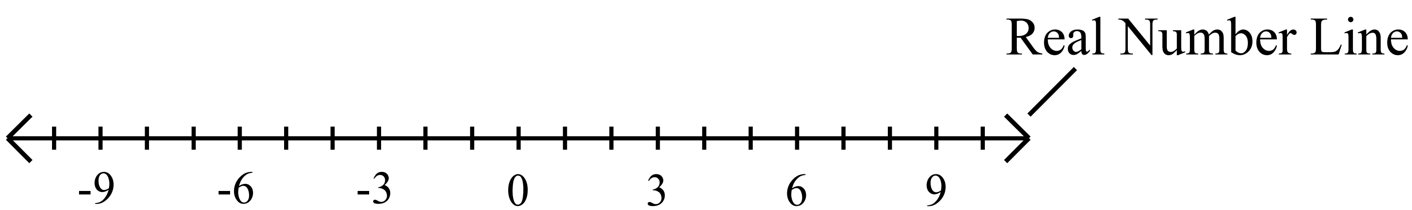
The set of Complex Numbers can be represented by a number plane.

The Complex Number System

The Complex Number System



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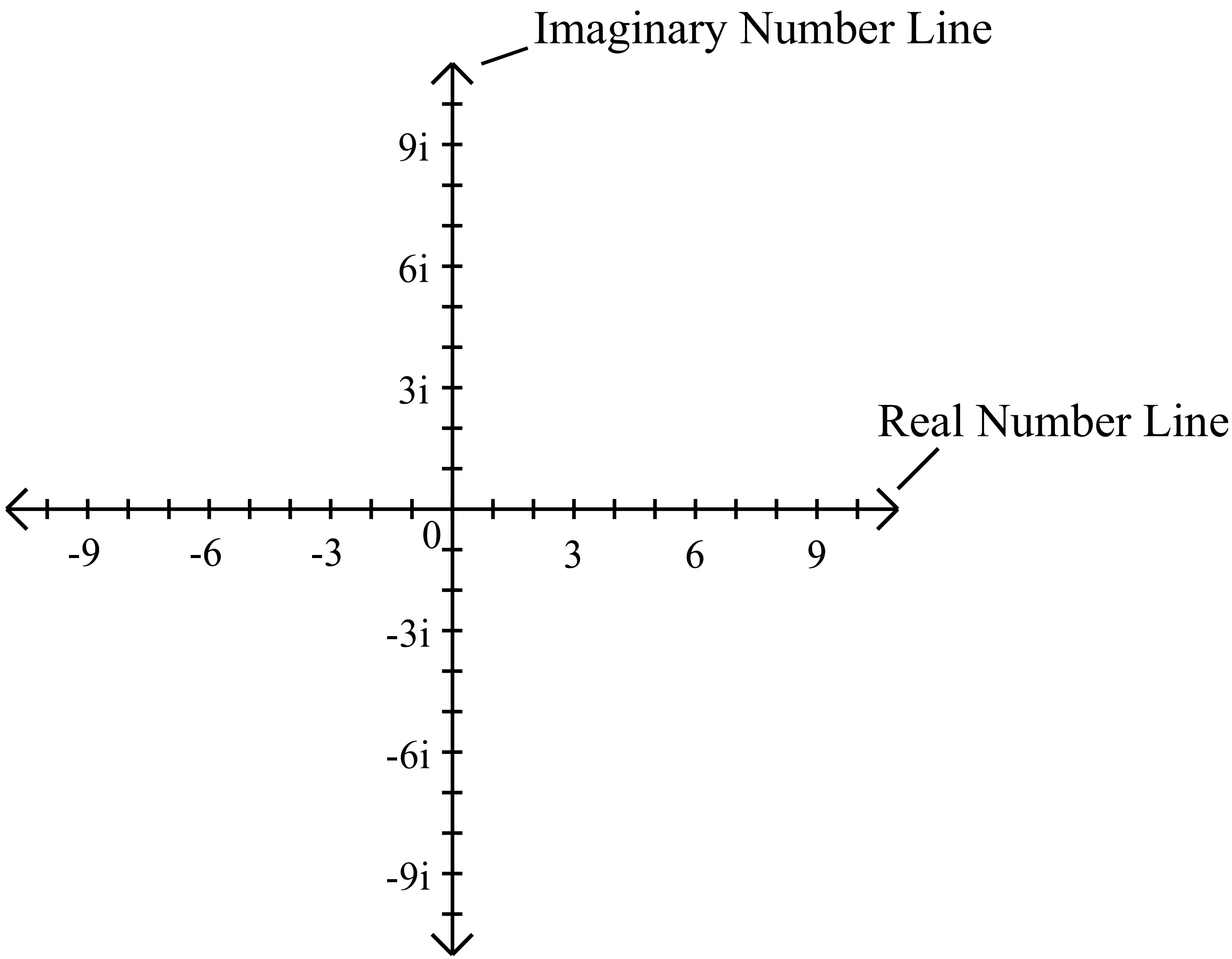

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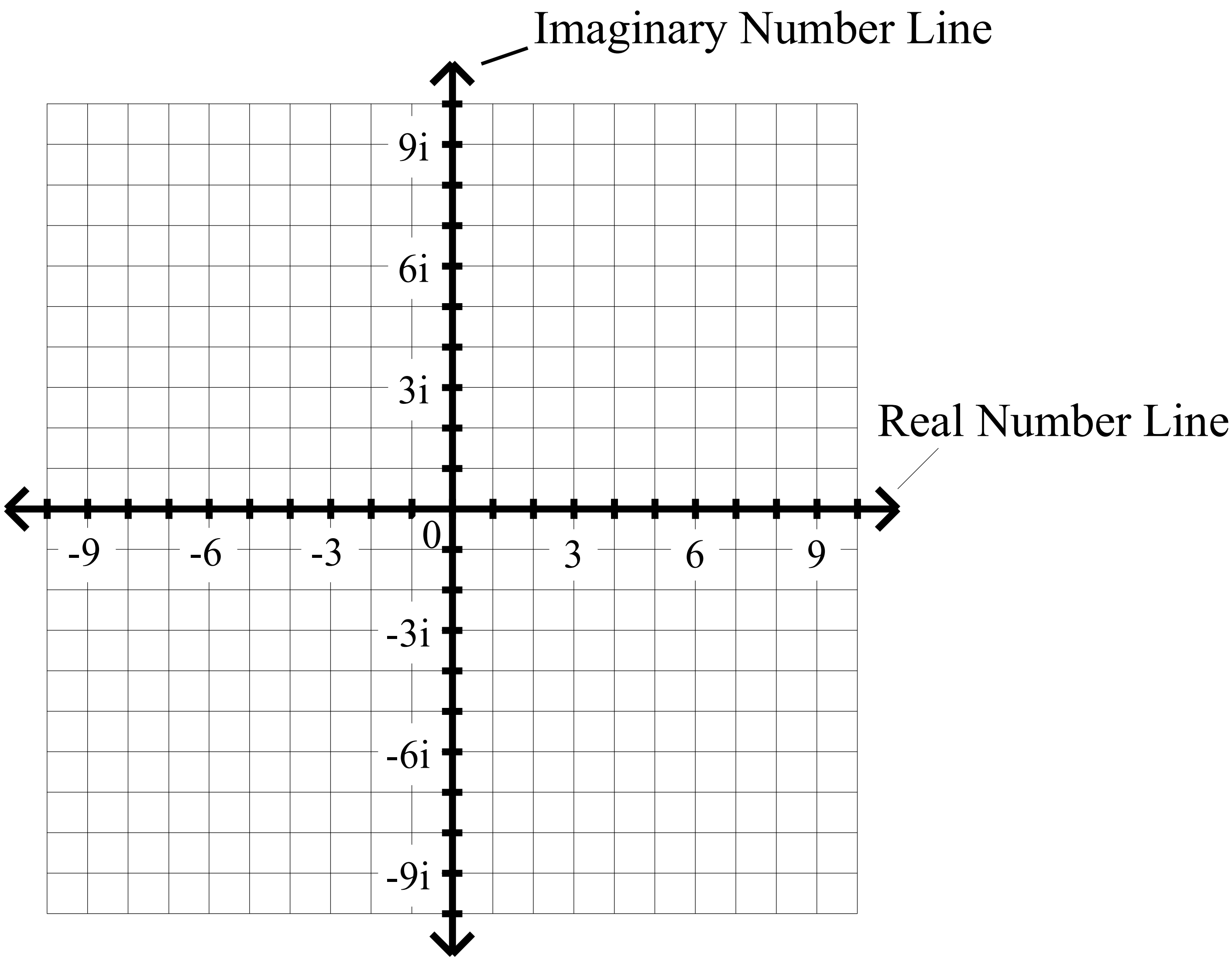
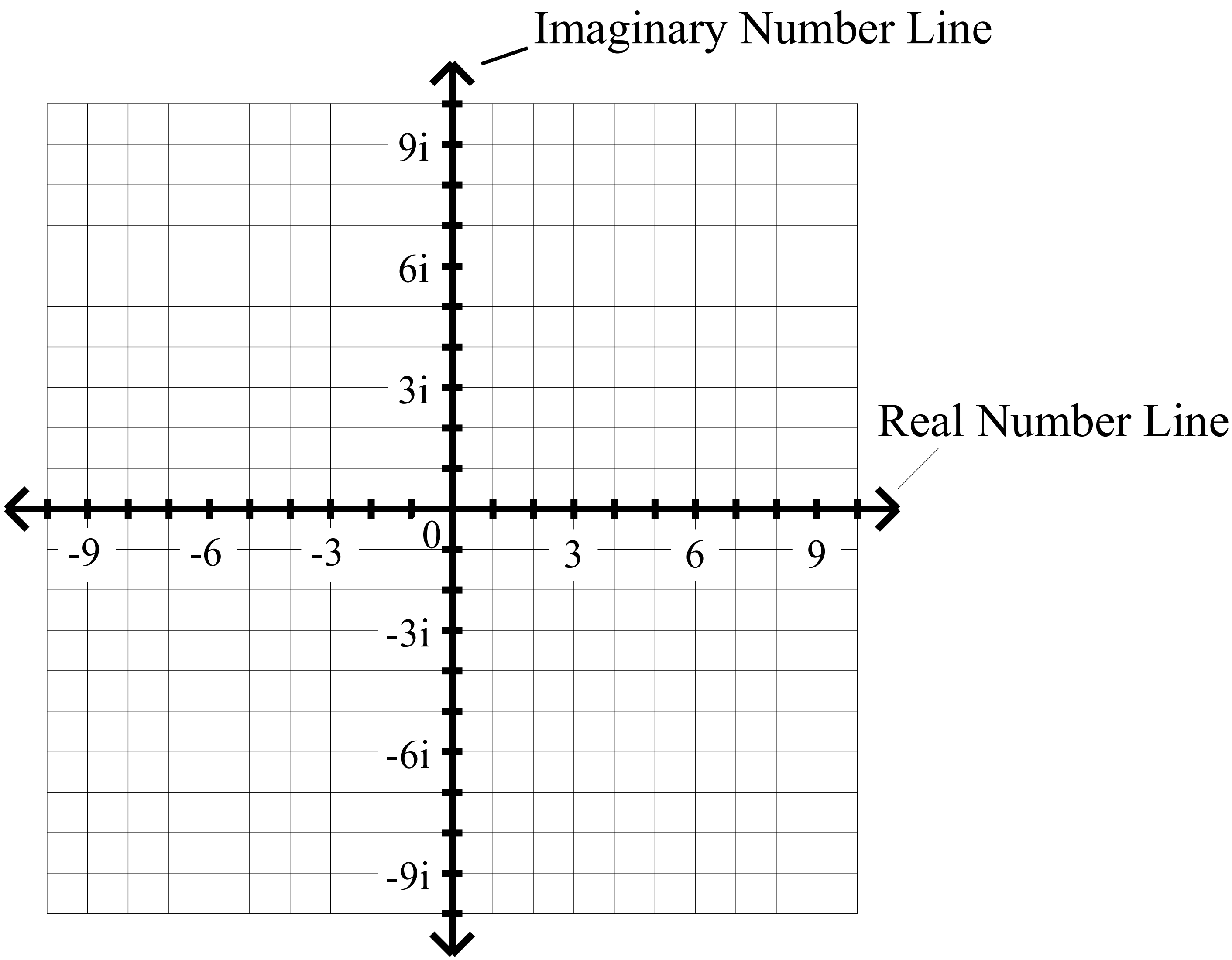


The Complex Number System

The Complex Number Plane



Algebra II   Class Worksheet #4   Unit 5

Graph each of the following numbers on the complex number plane. Label your graphs properly.

1. 7 + 4i

2. -3 + 5i

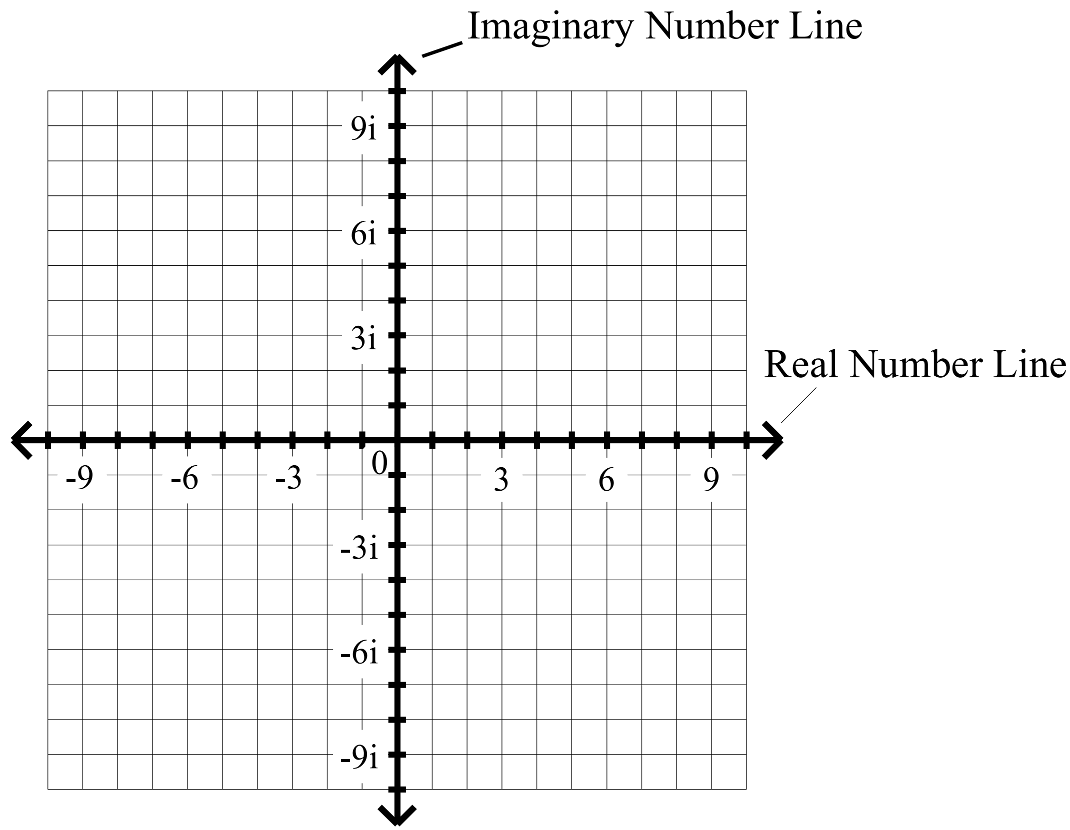
3. -6 – 8i

4. 9 – 4i

5. 7

6. -5i

The Complex Number Plane



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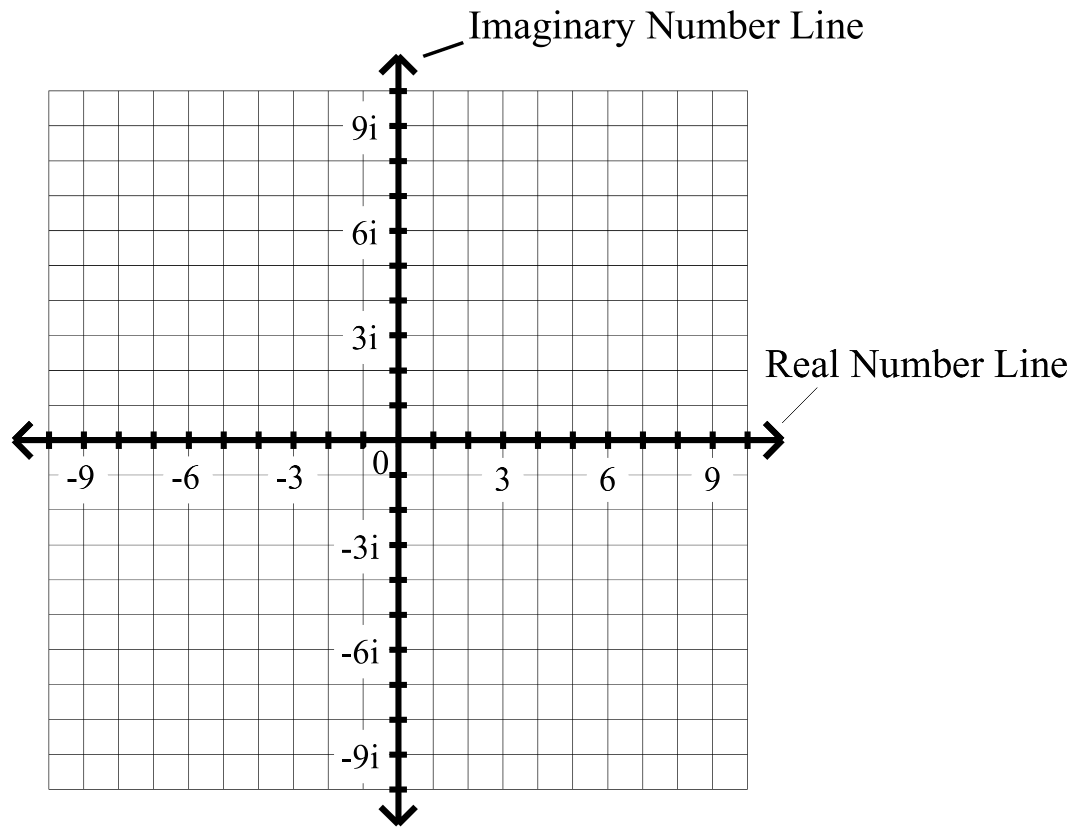

Graphing Complex Numbers

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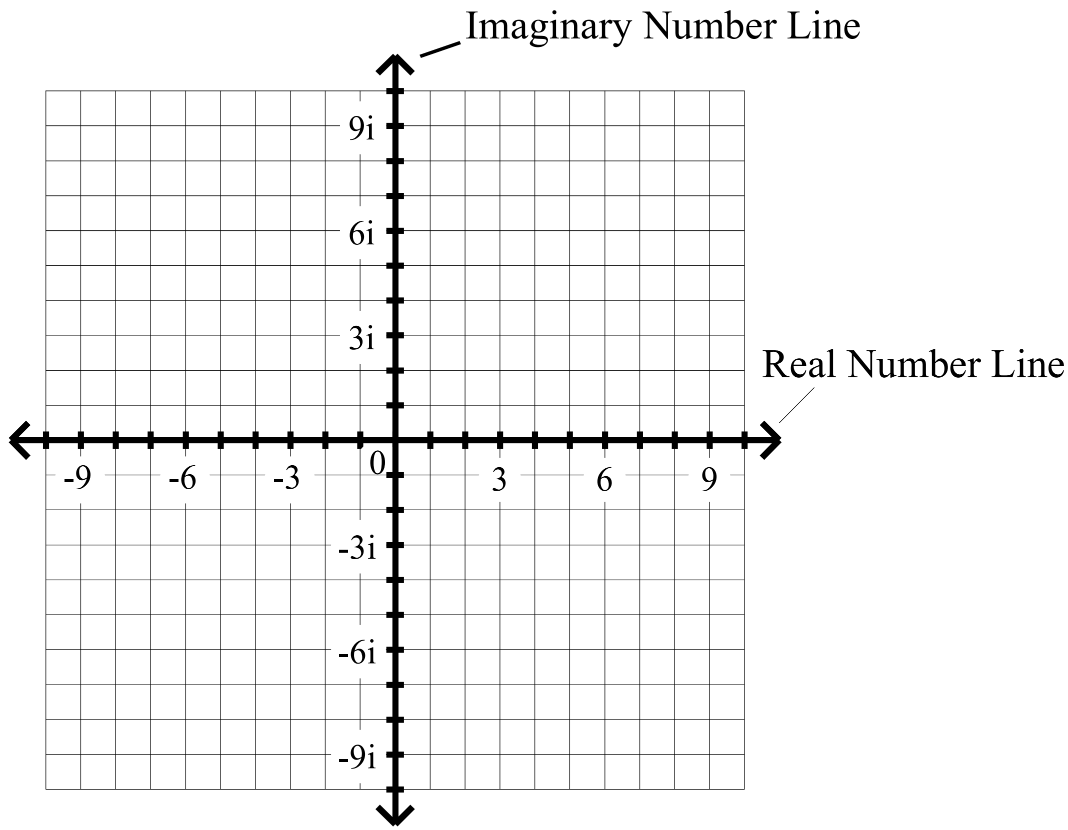
Graphing Complex Numbers

The Complex Number Plane



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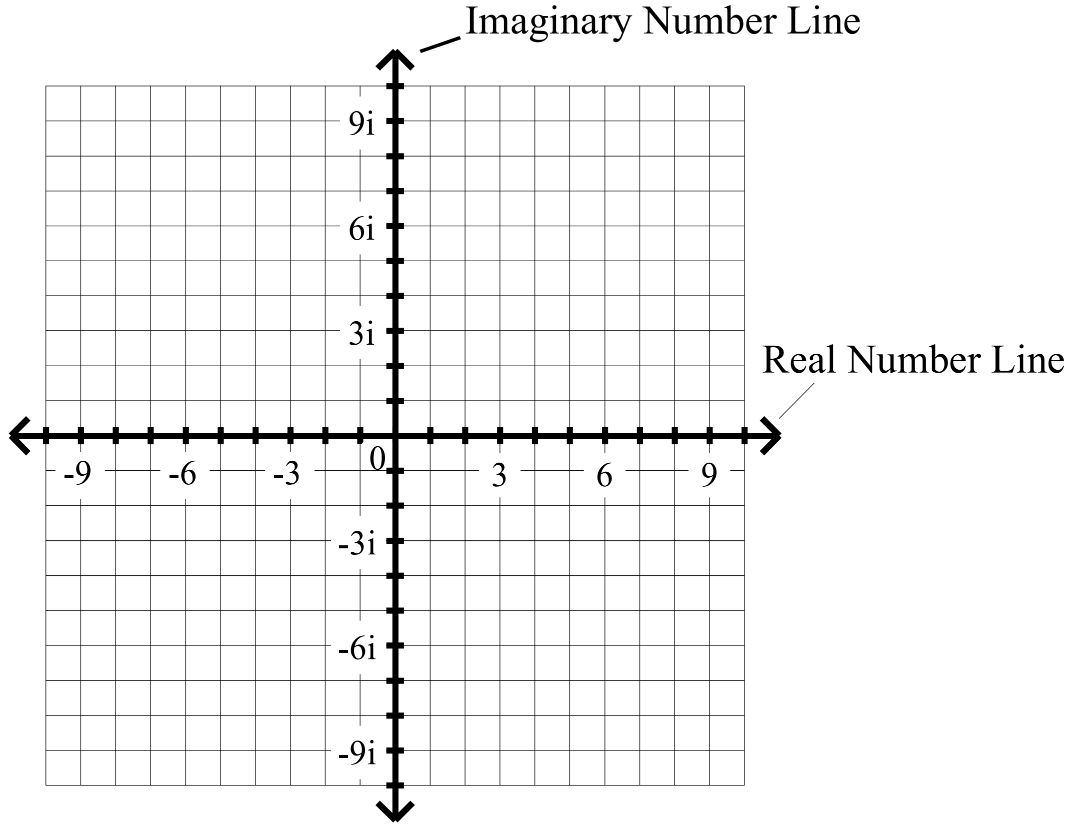

Graphing Complex Numbers

The 'real component' of the number is 7.

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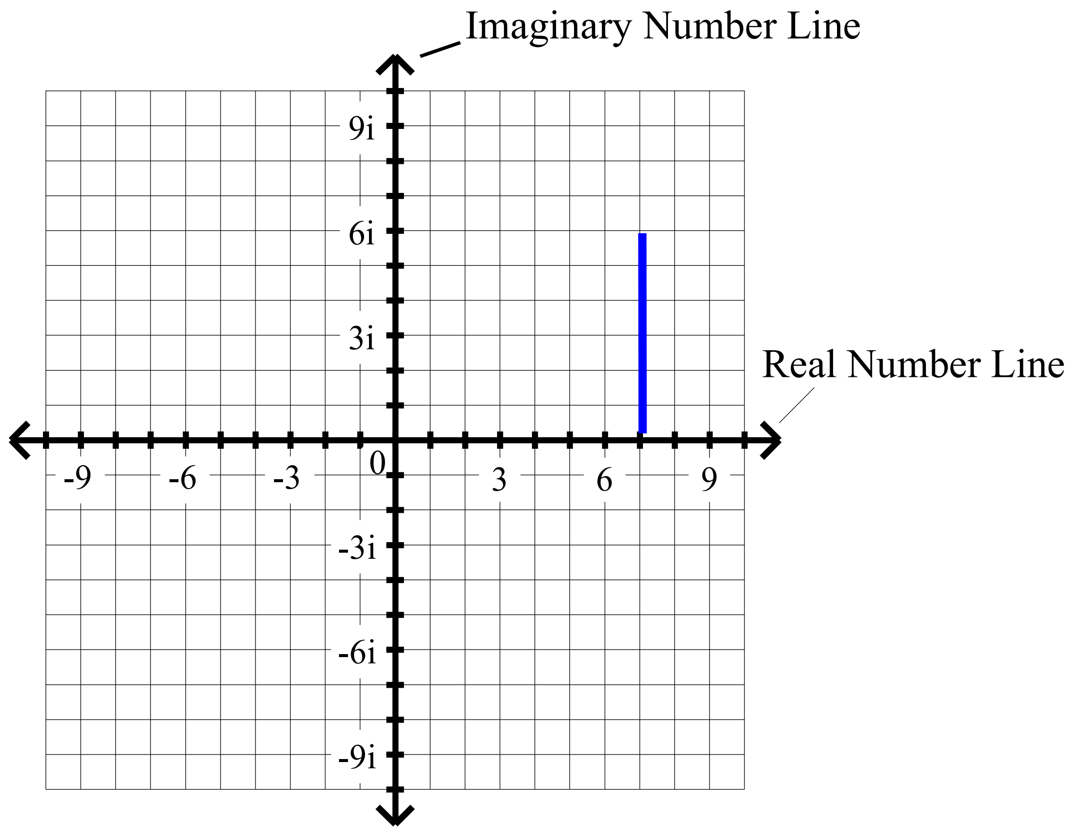

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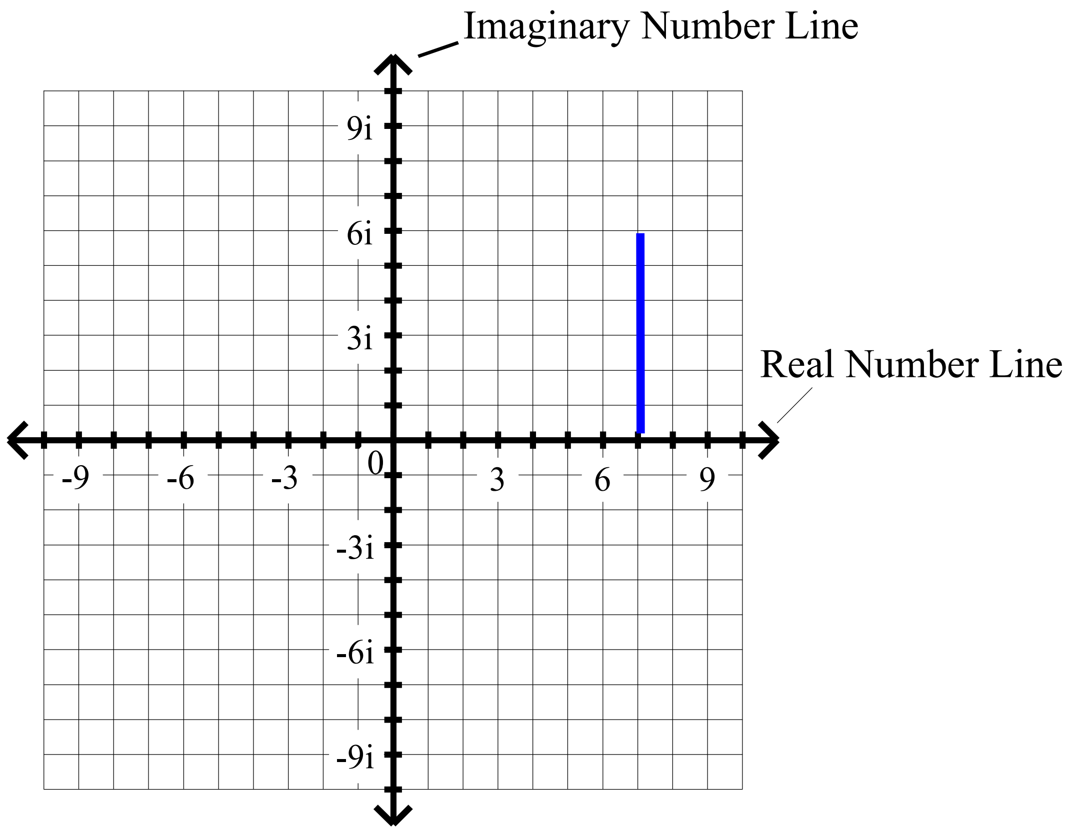

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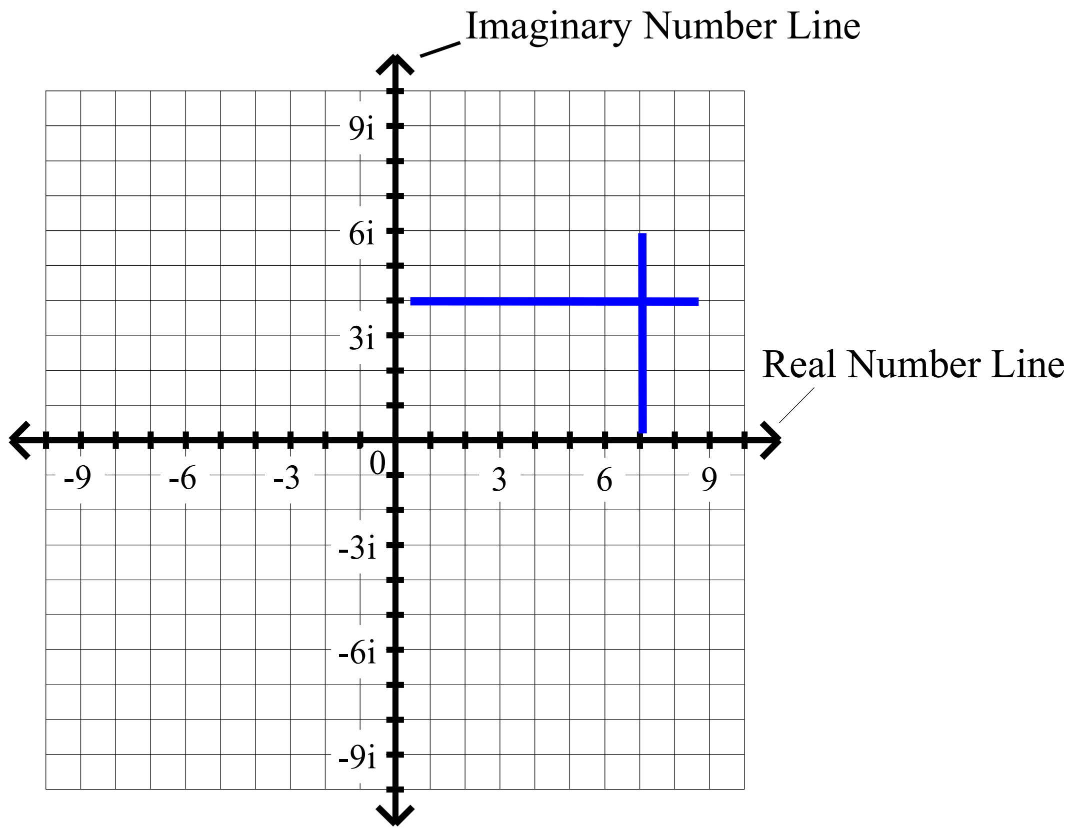

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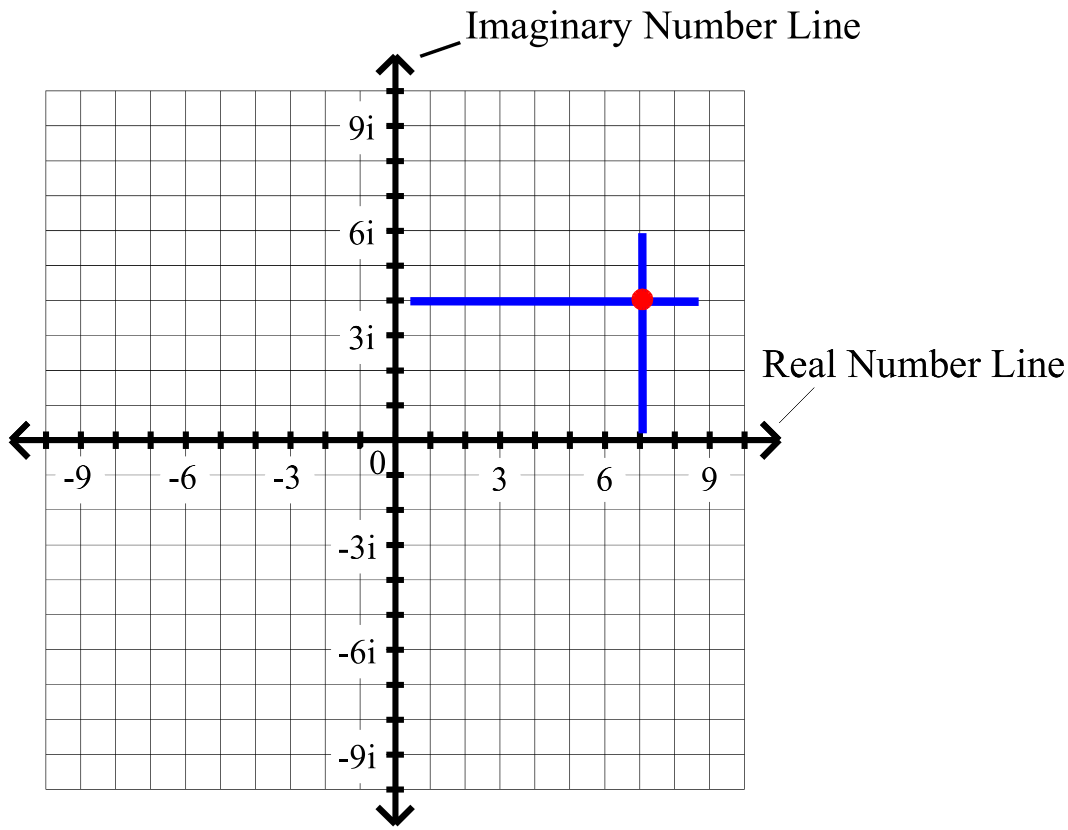

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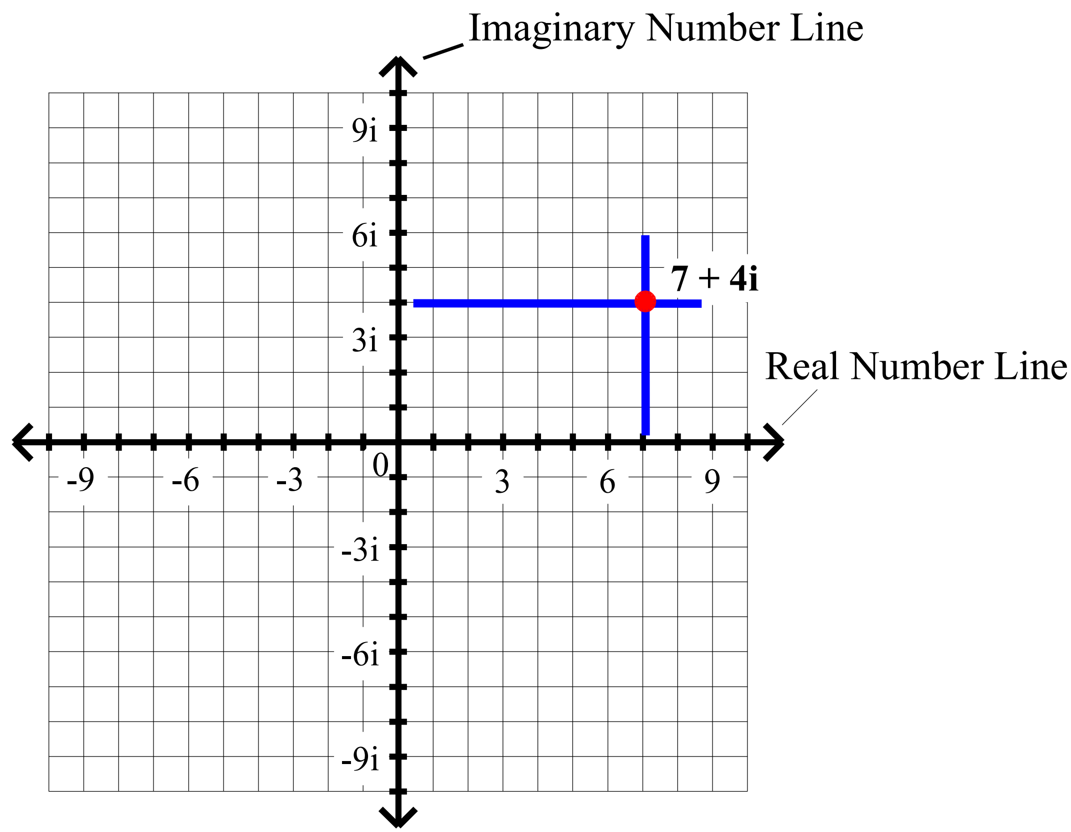

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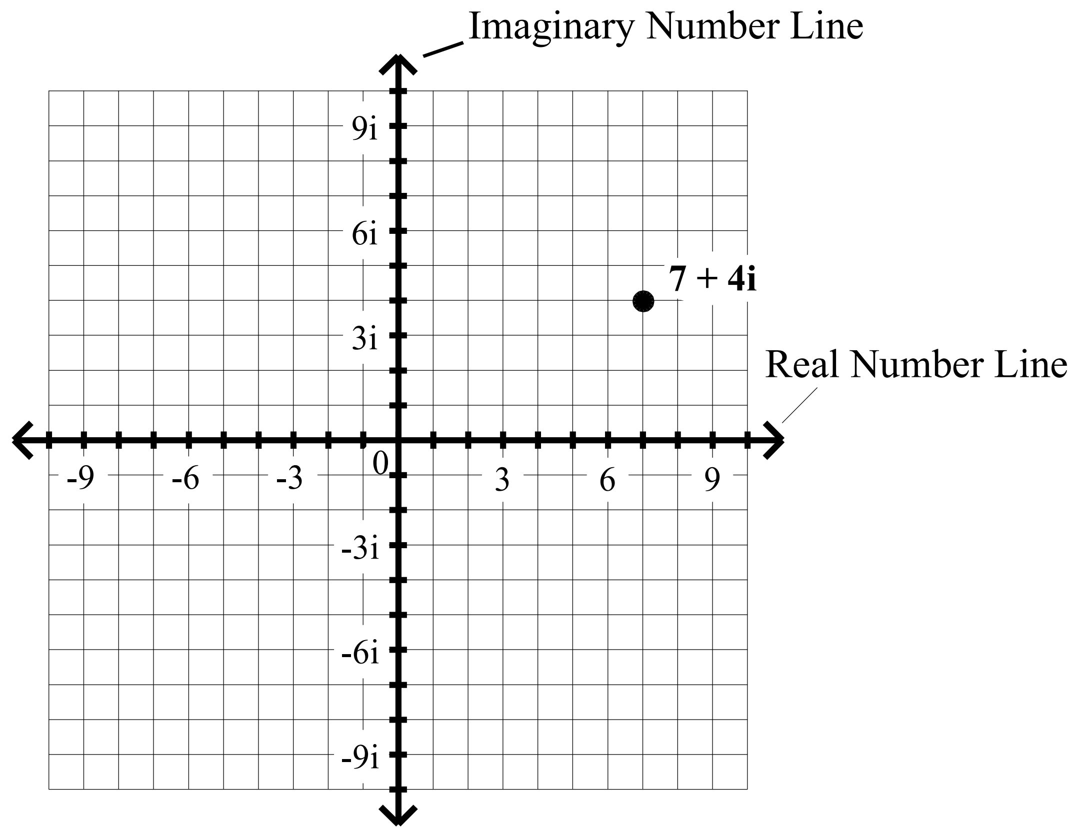

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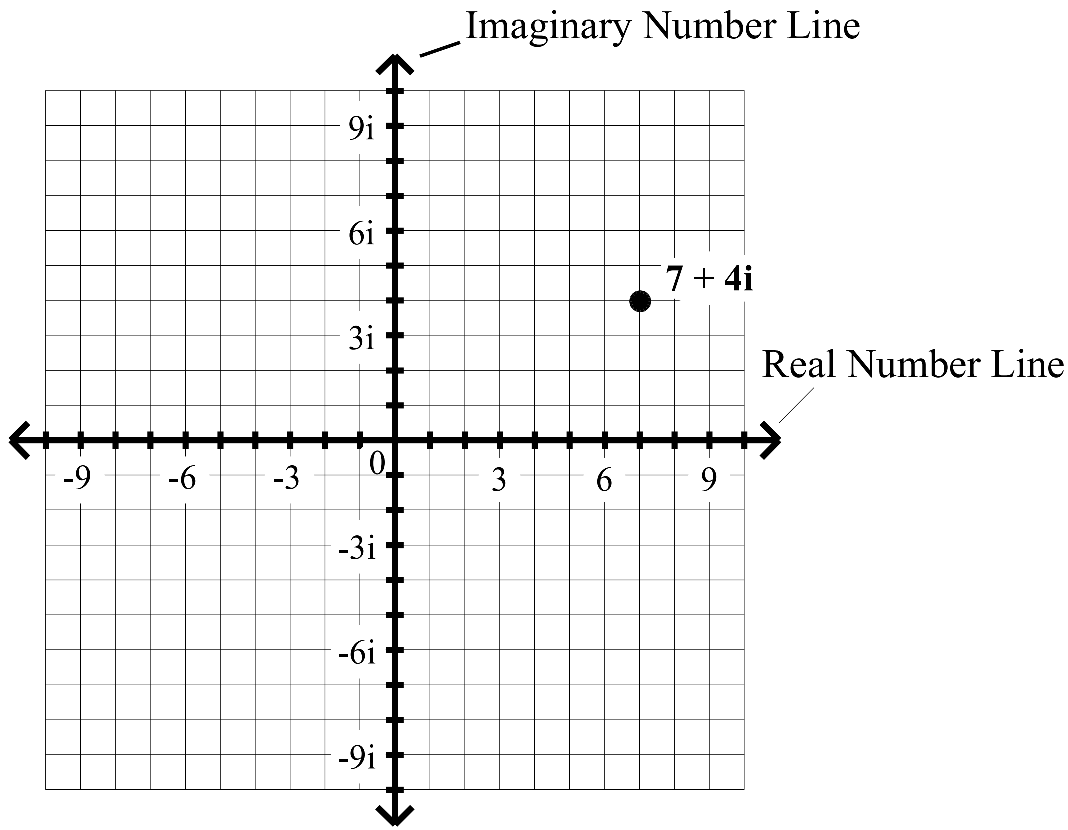

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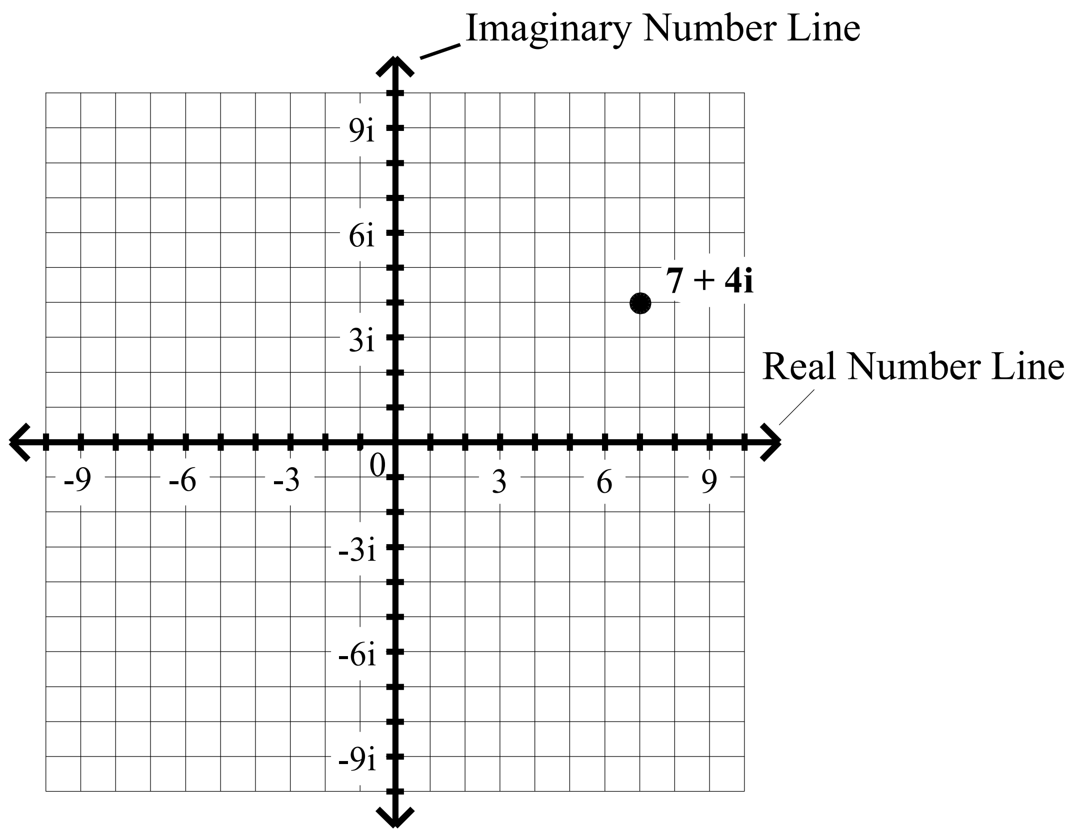

Graphing Complex Numbers

The 'real component' of the number is -3.

Algebra II Class Worksheet #4 Unit 5

Graph each of the following numbers on the complex number plane. Label your graphs properly.

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4. $9 - 4i$
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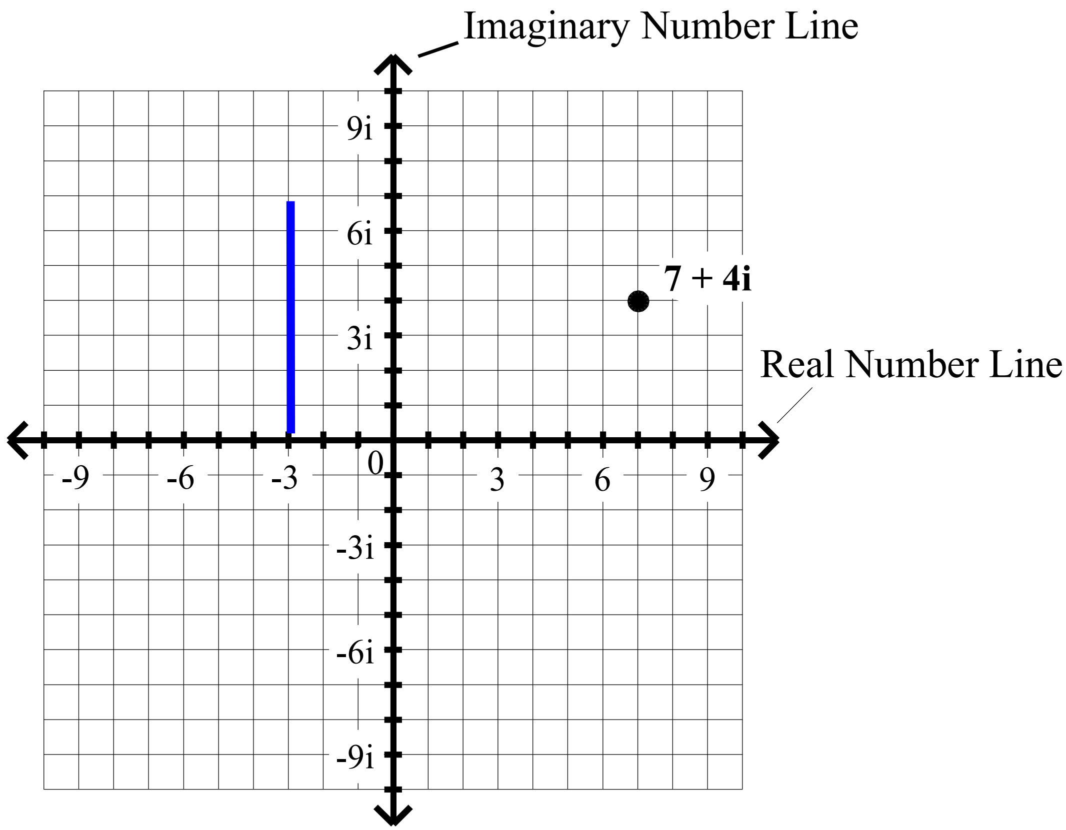
The Complex Number Plane



Graphing Complex Numbers

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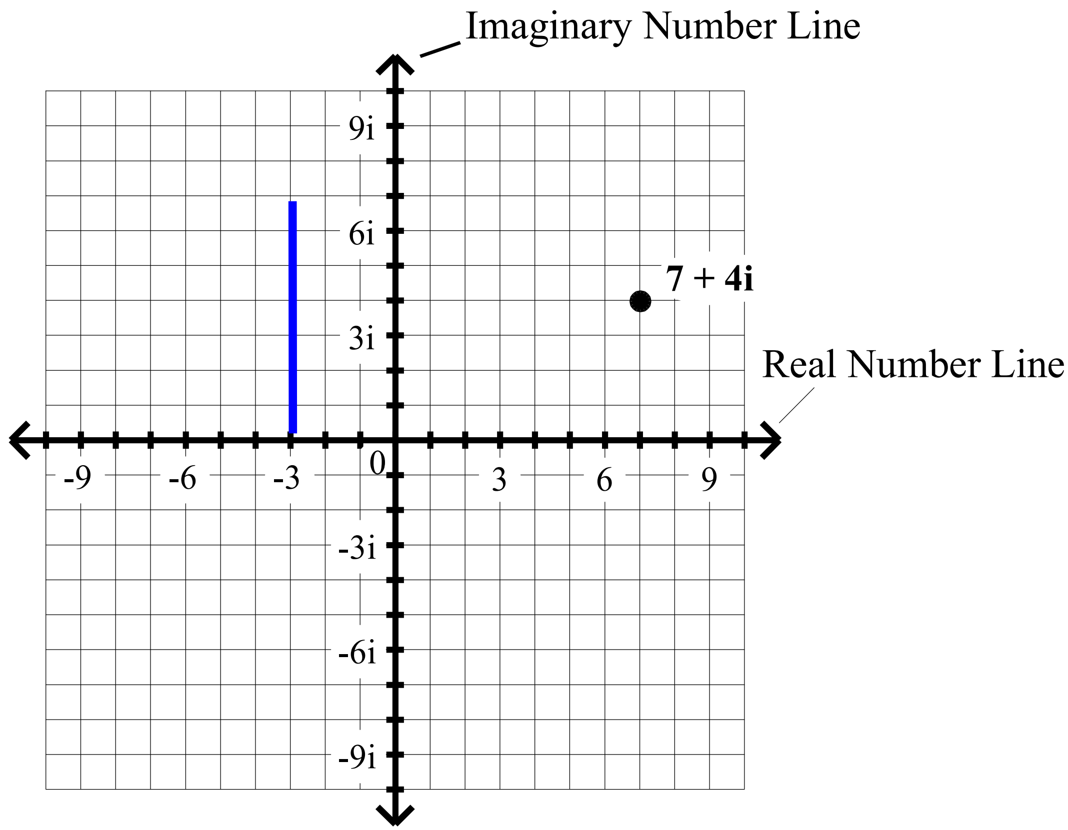
The Complex Number Plane



Graphing Complex Numbers

The 'real component' of the number is -3.

The 'imaginary component' of this number is 5i.

Algebra II Class Worksheet #4 Unit 5

Graph each of the following numbers on the complex number plane. Label your graphs properly.

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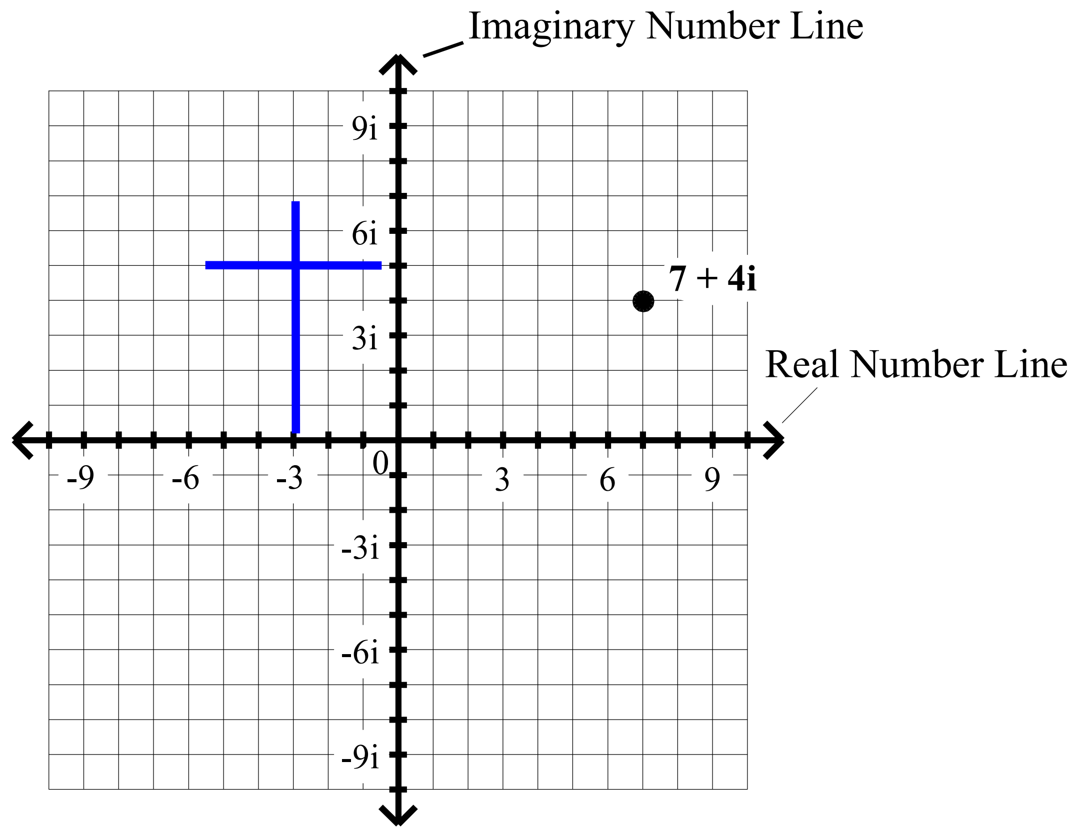
The Complex Number Plane



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Algebra II Class Worksheet #4 Unit 5

Graph each of the following numbers on the complex number plane. Label your graphs properly.

1. 7 + 4i
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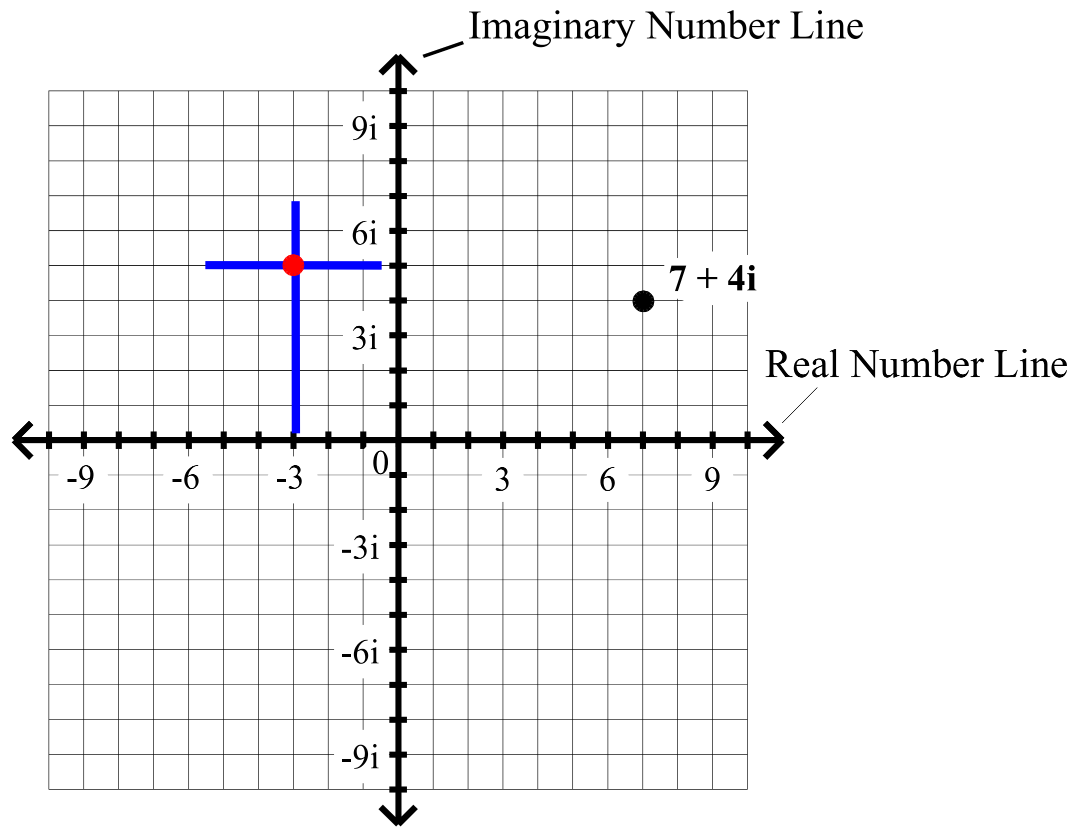
The Complex Number Plane



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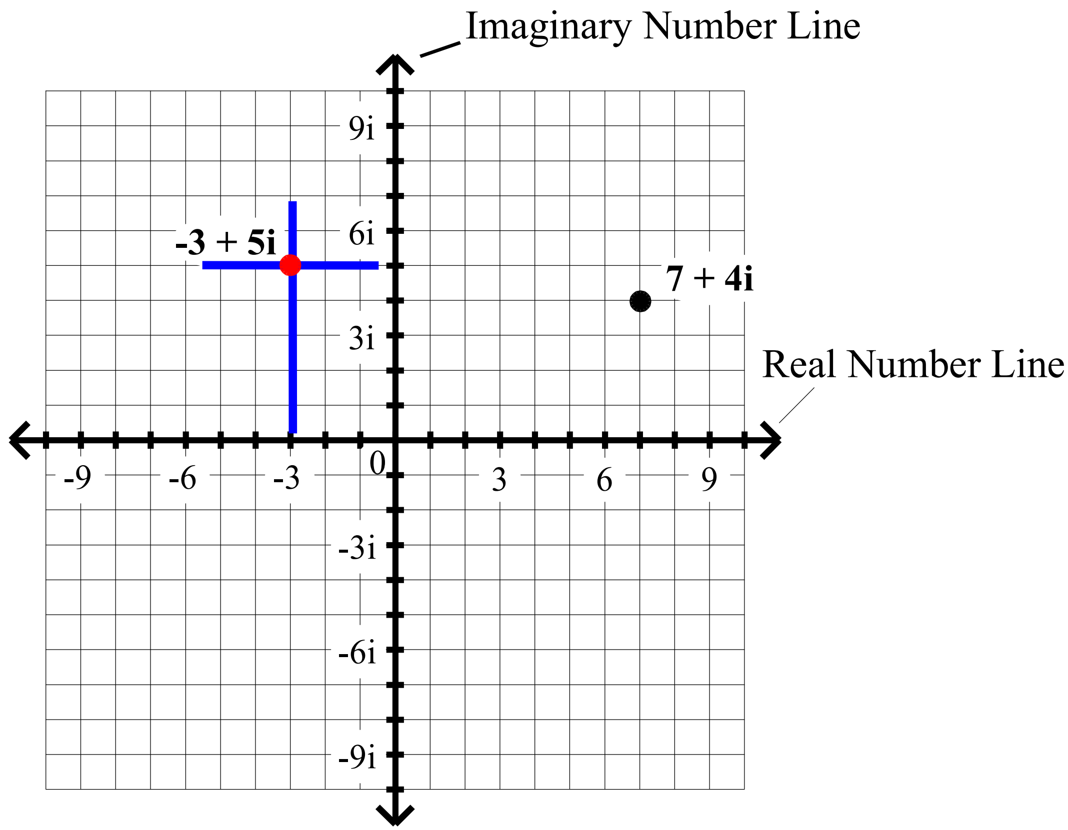

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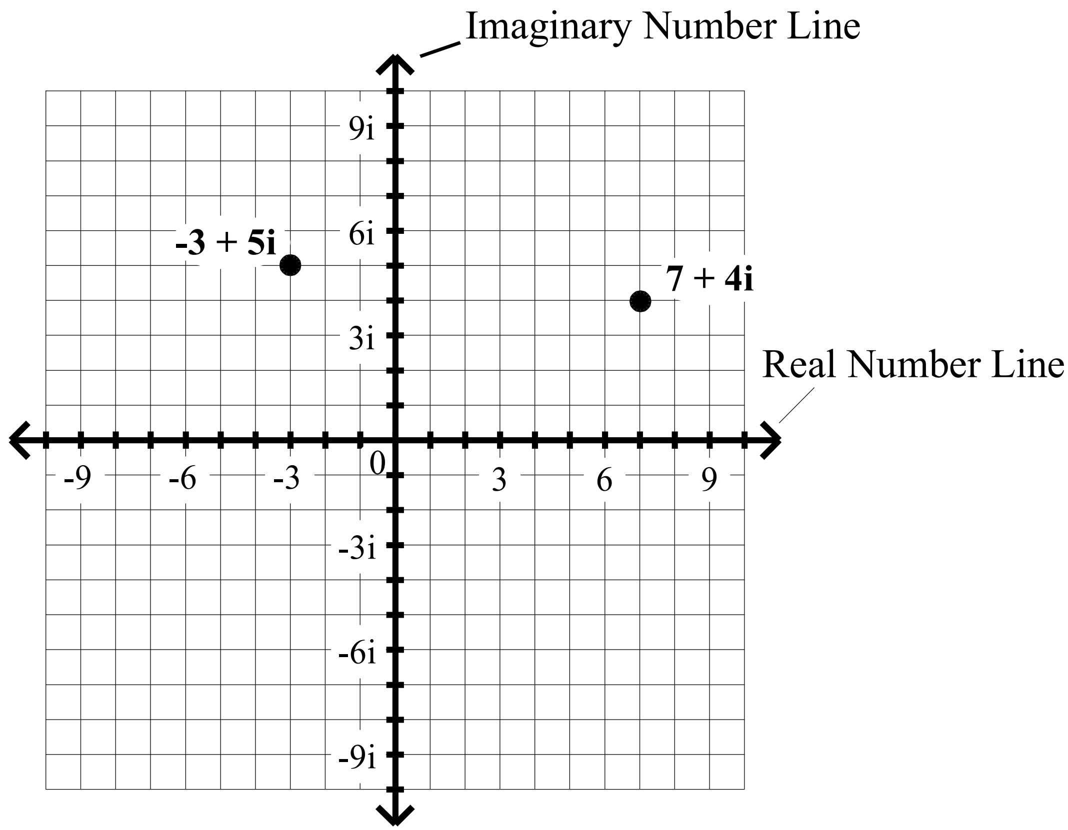

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Graphing Complex Numbers

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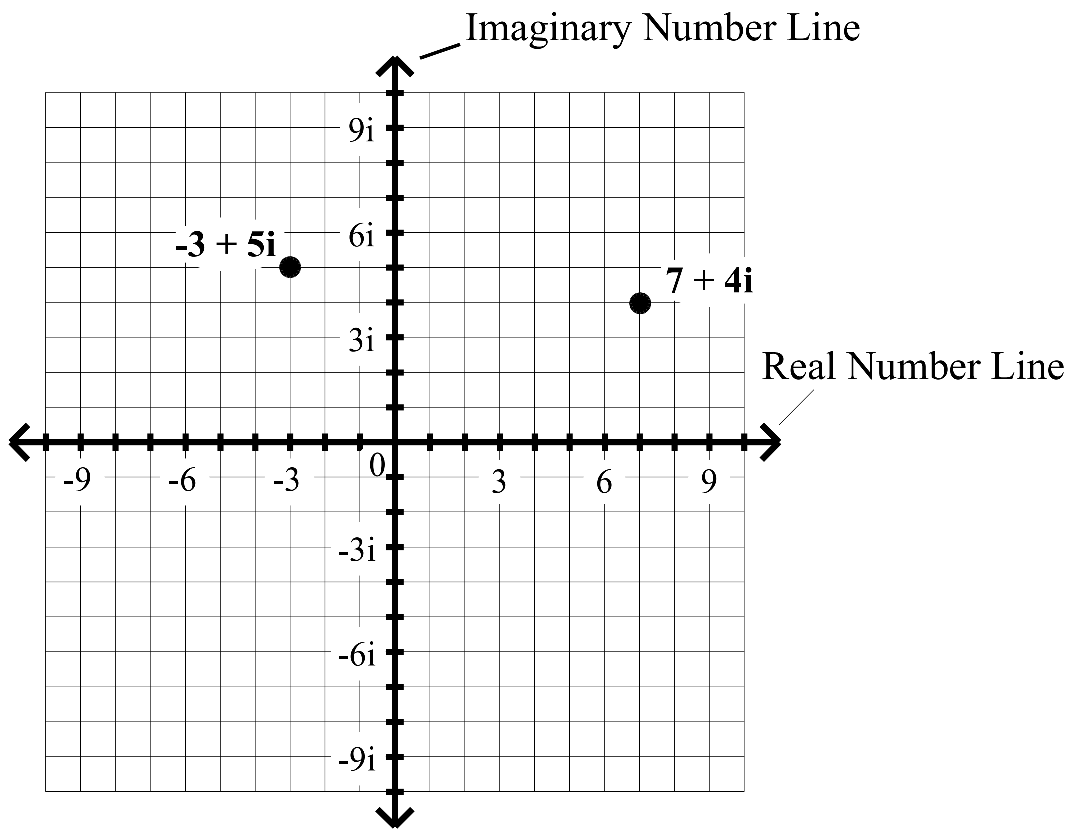

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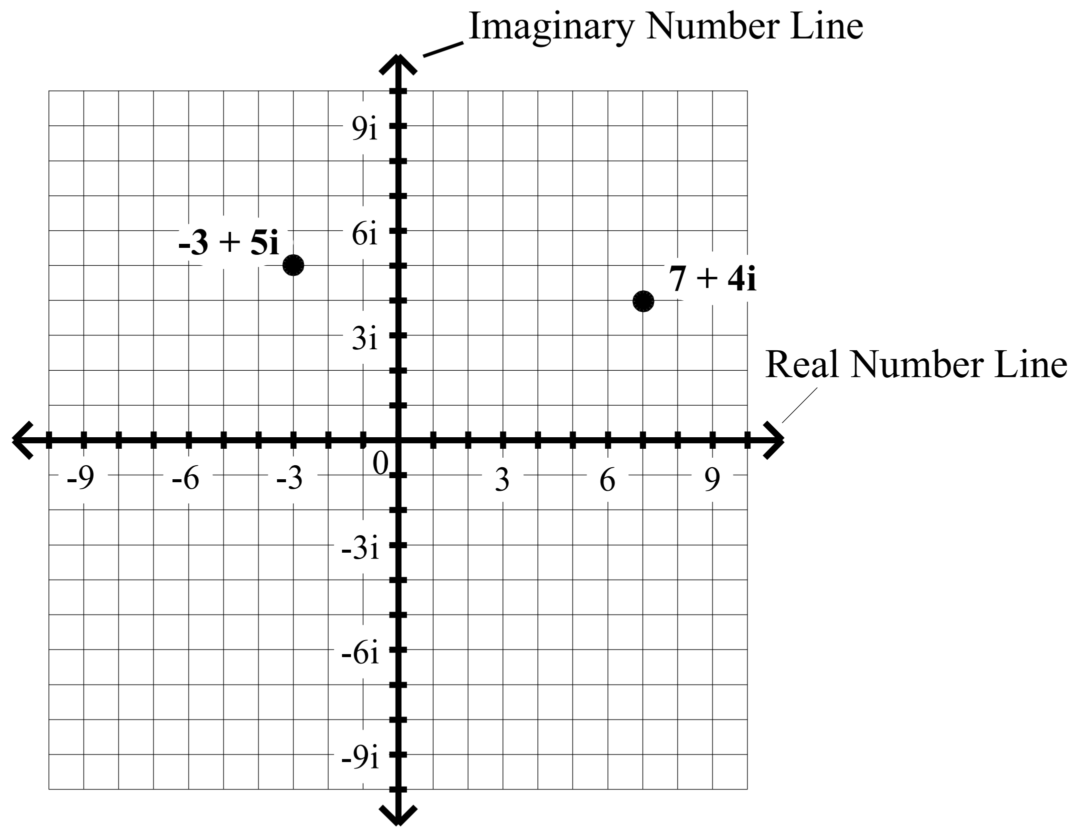

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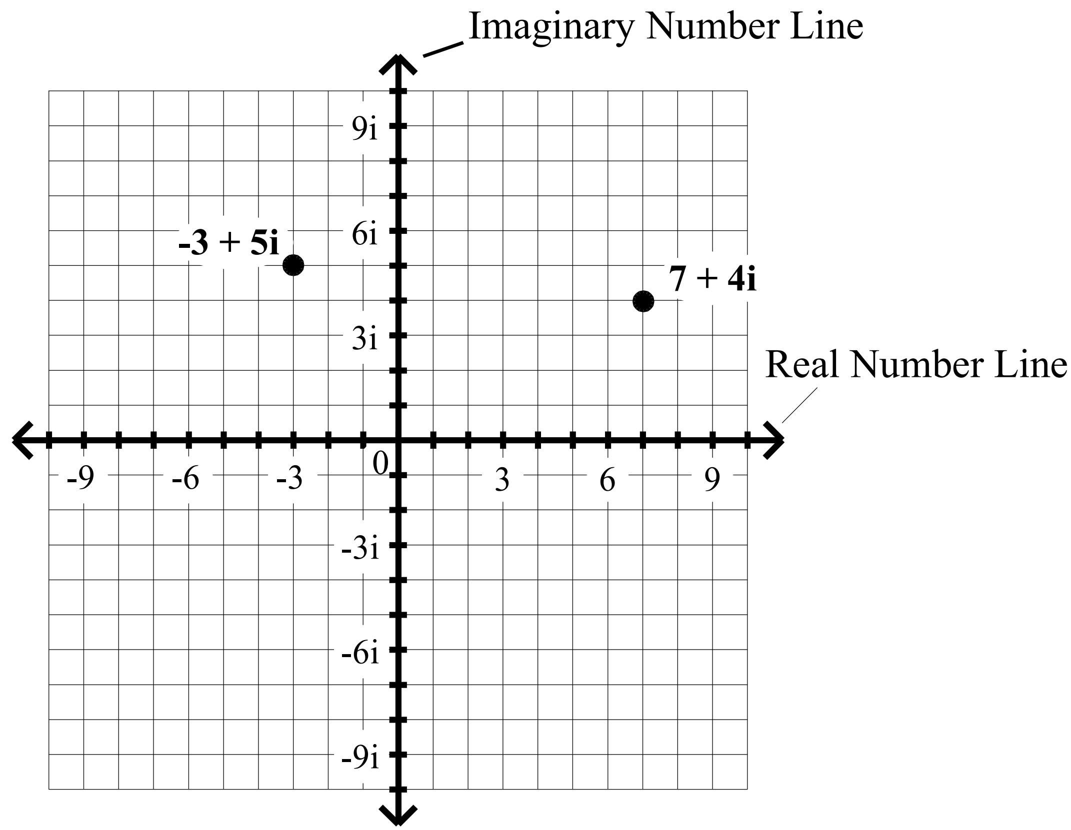


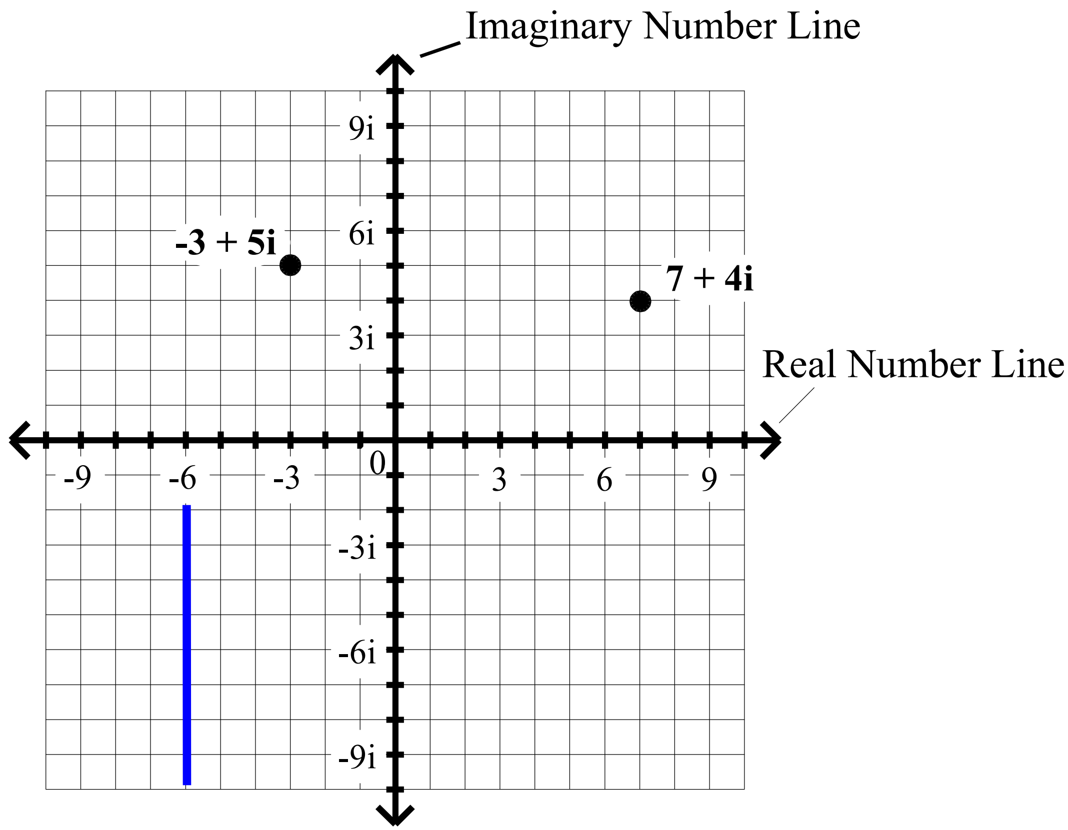
Graphing Complex Numbers

The 'real component' of the number is -6.

Algebra II   Class Worksheet #4   Unit 5

Graph each of the following numbers on the complex number plane. Label your graphs properly.

The Complex Number Plane



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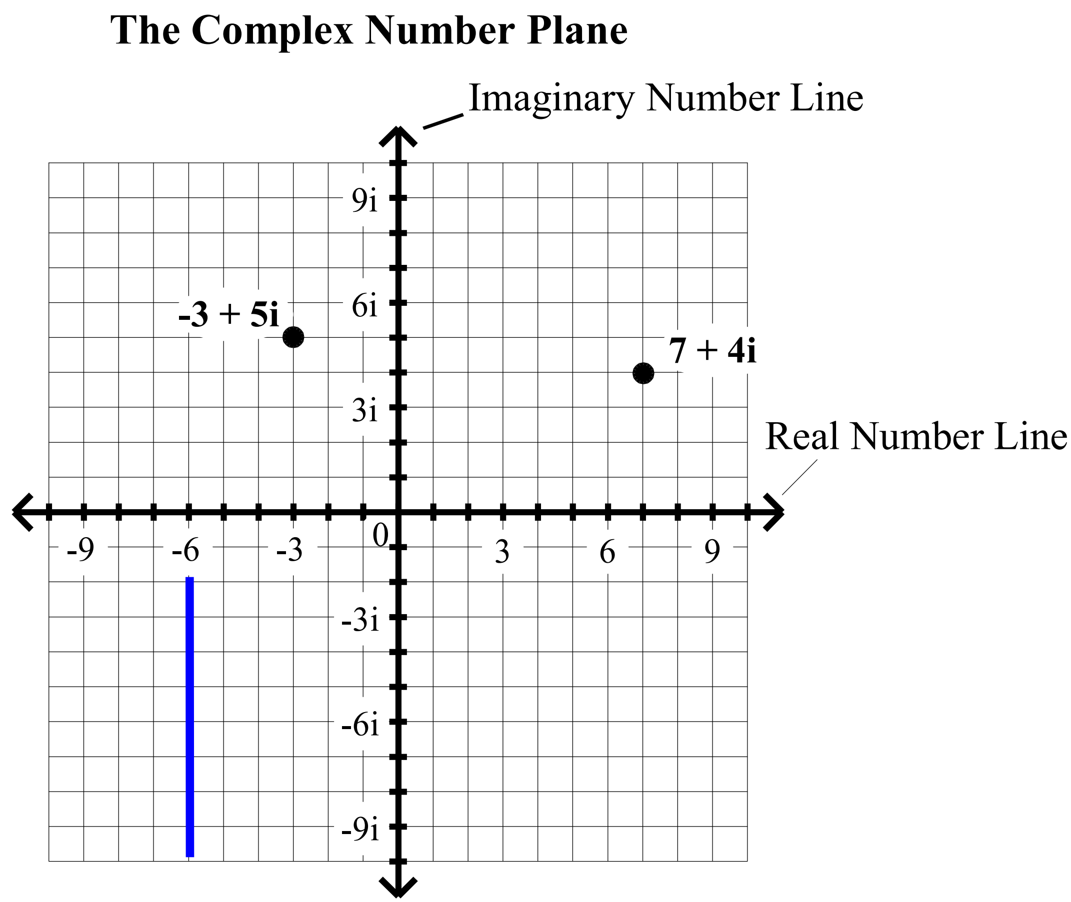

Graphing Complex Numbers

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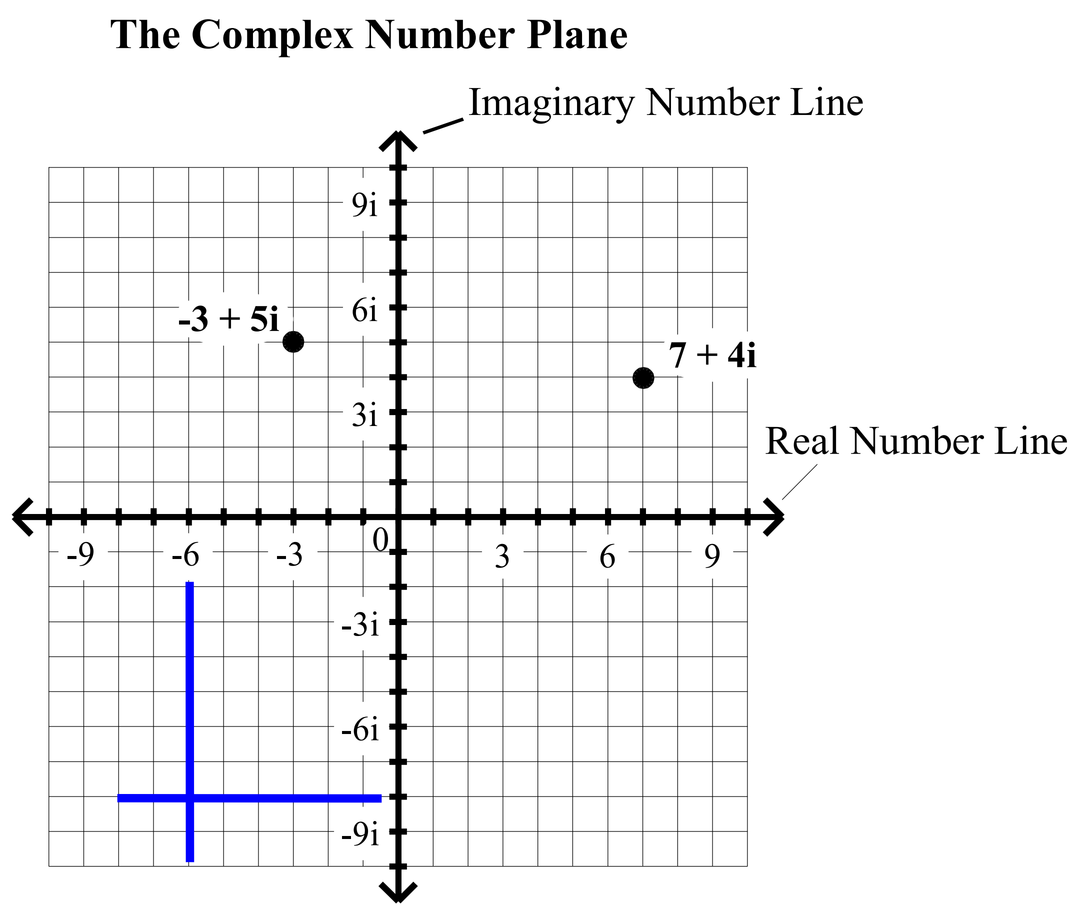

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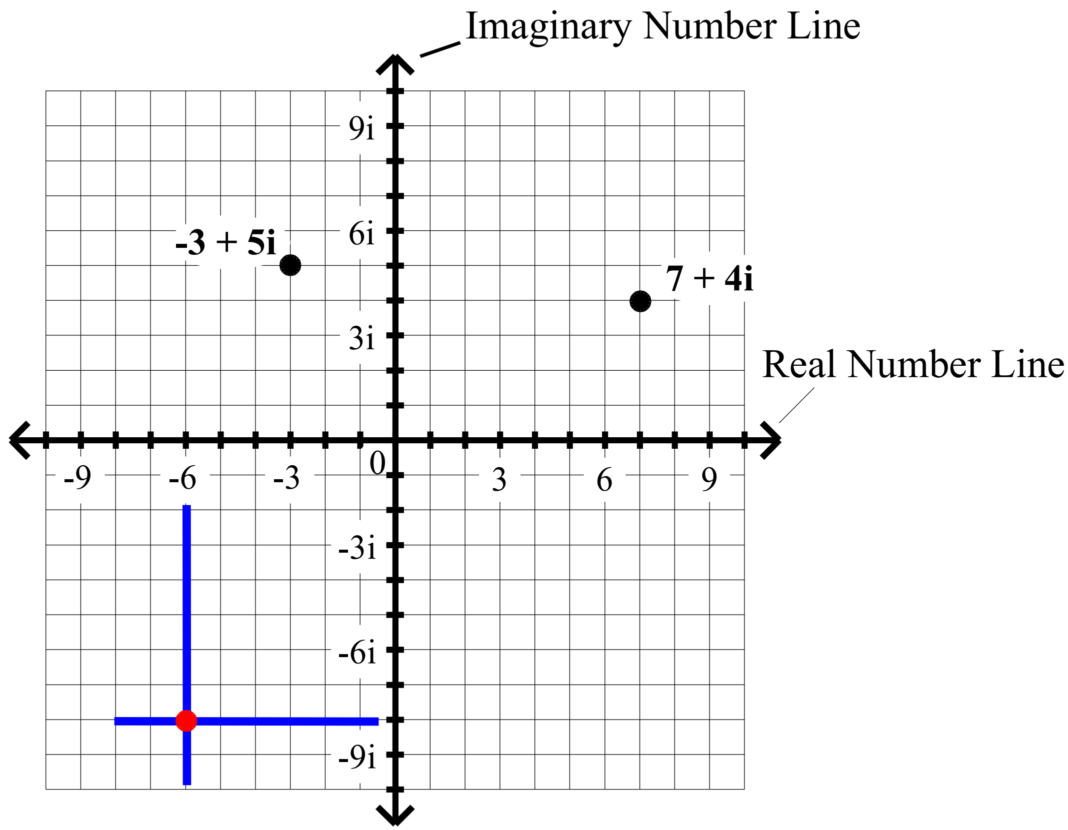

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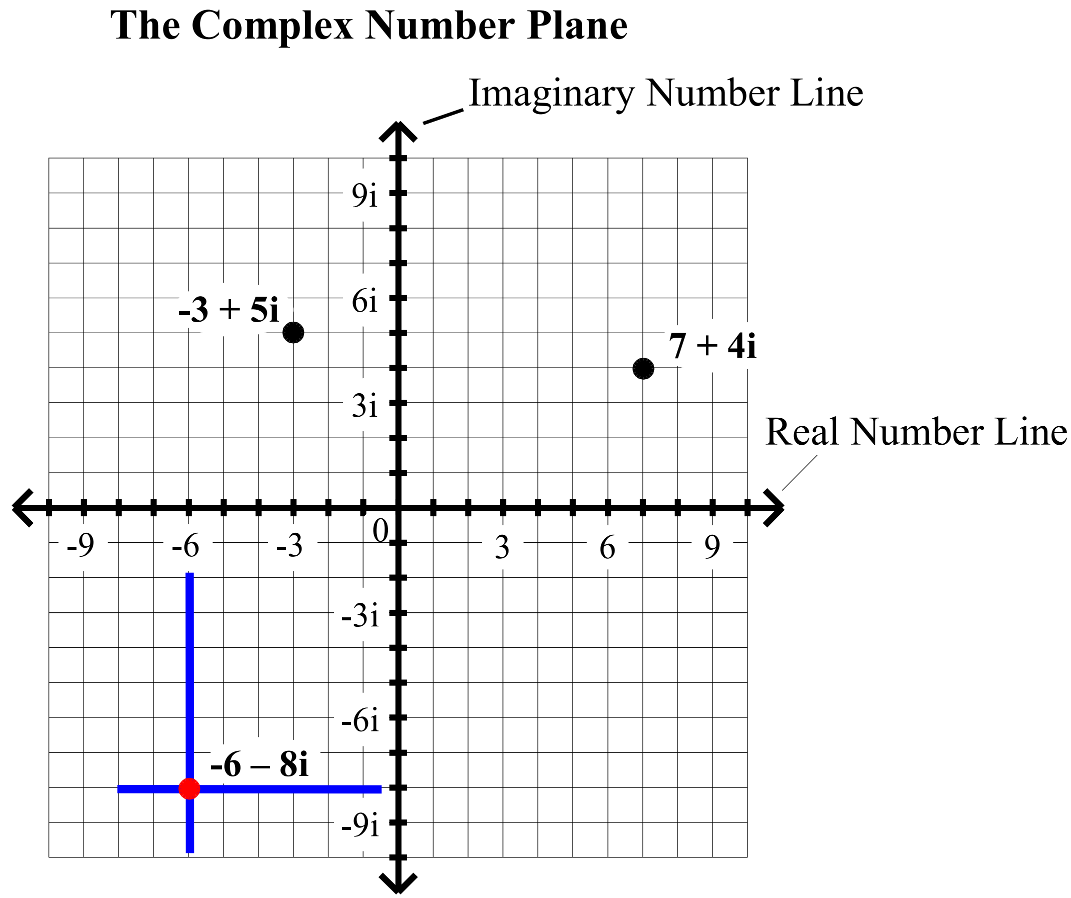

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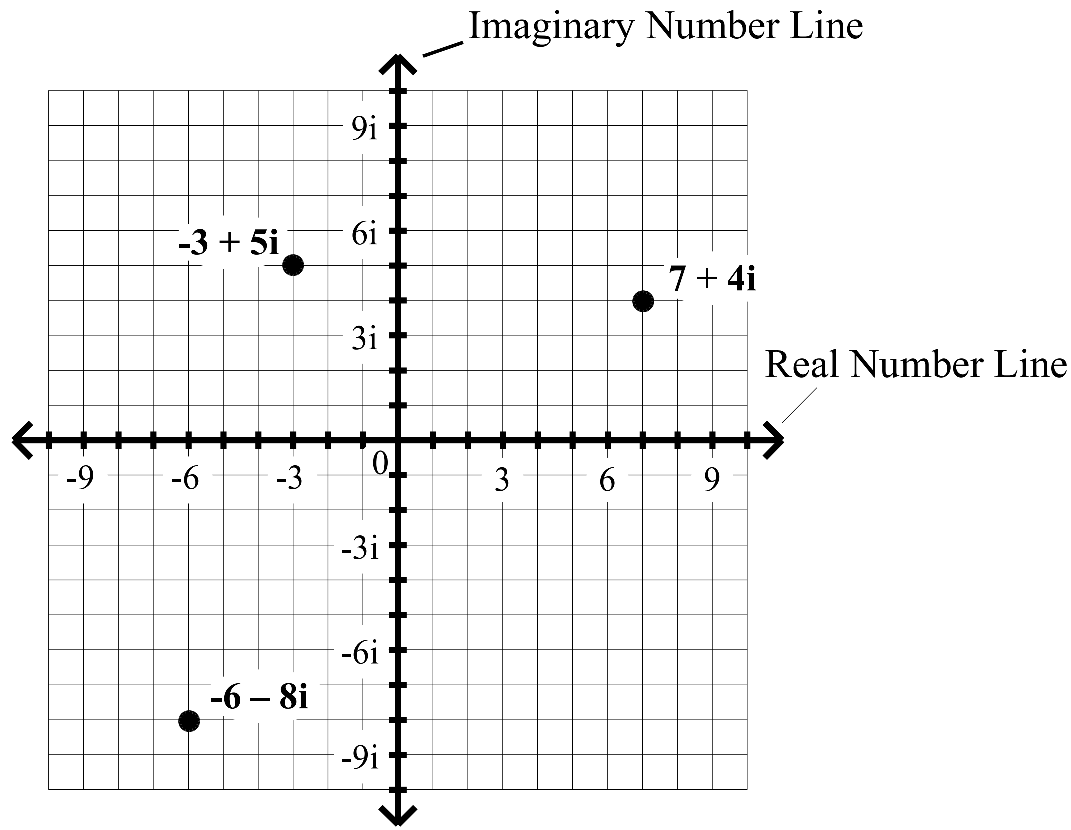

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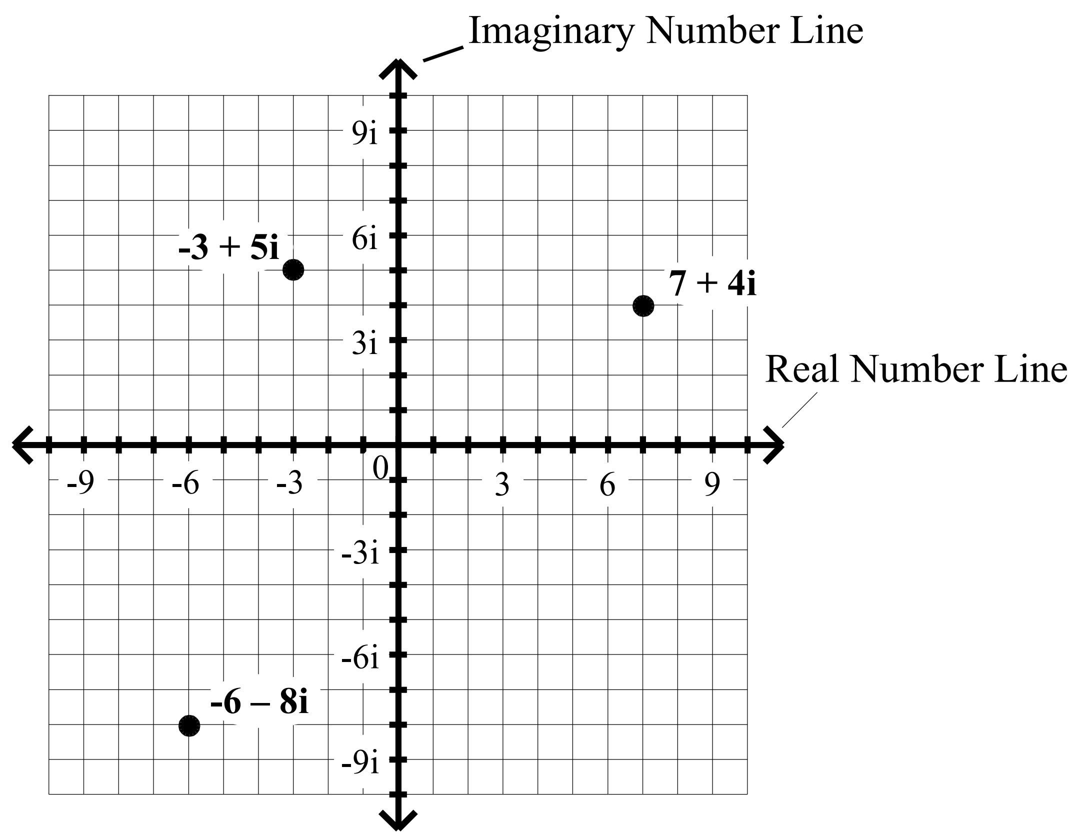
Graphing Complex Numbers

The Complex Number Plane



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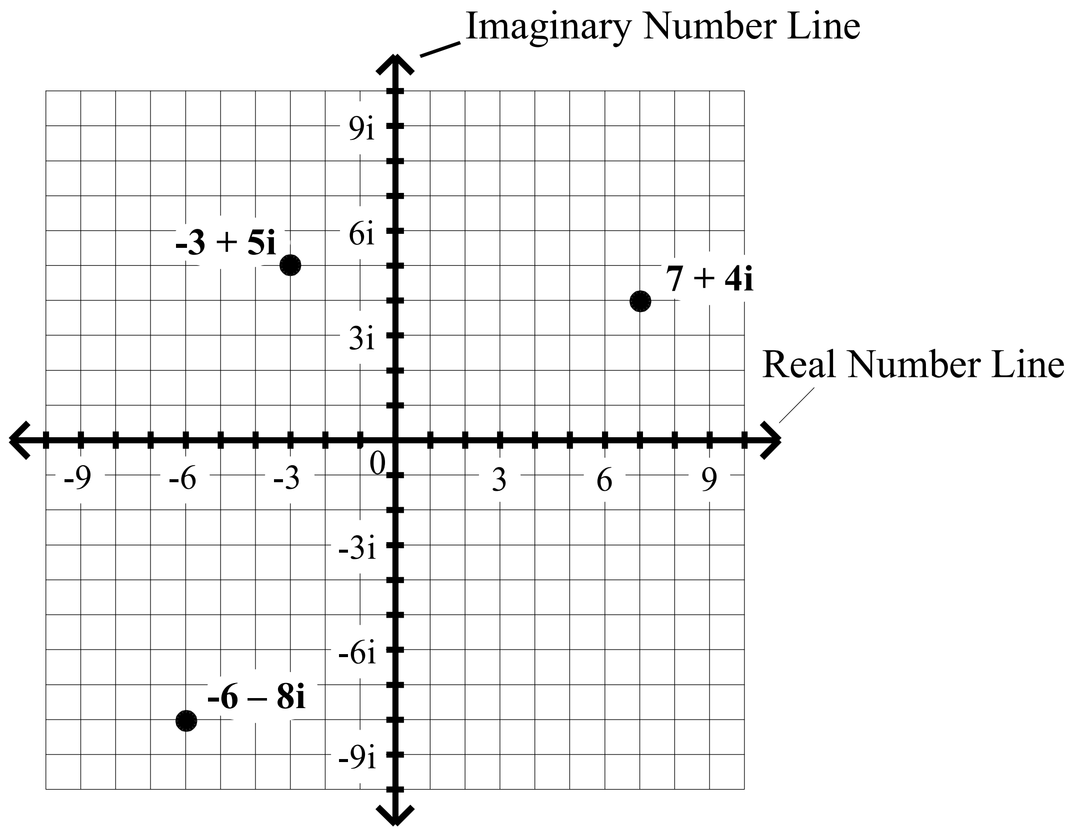

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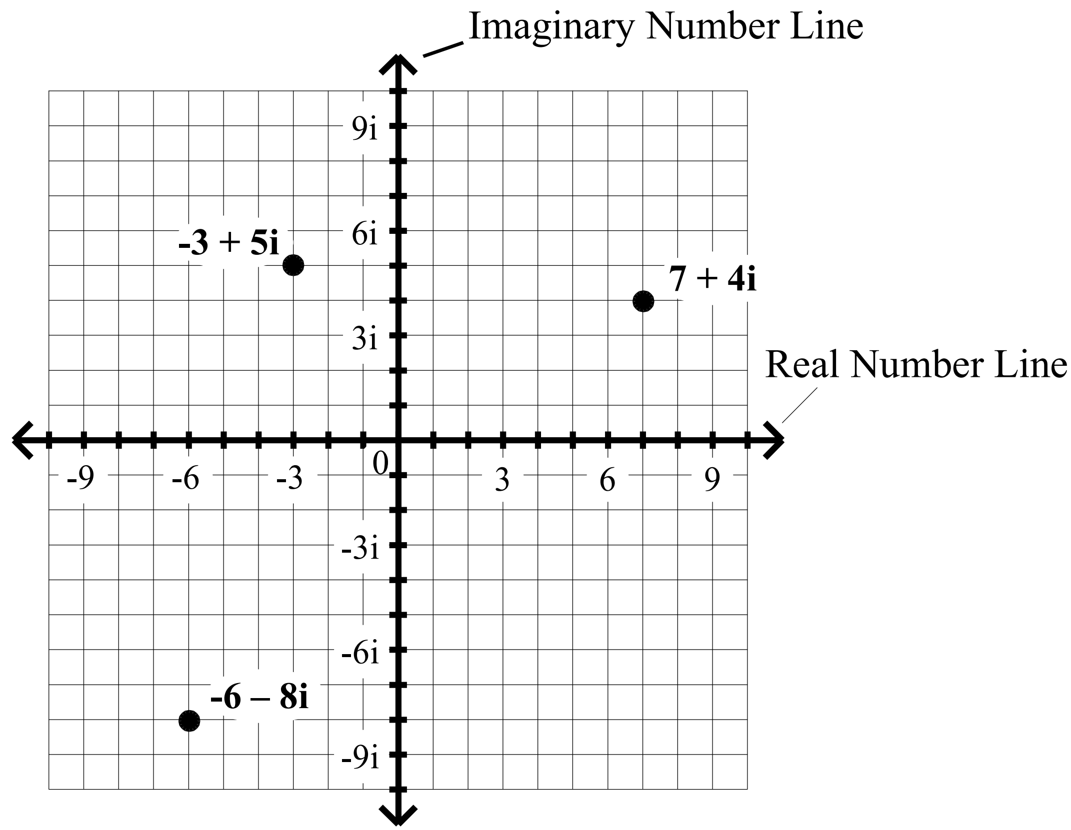

Graphing Complex Numbers

The 'real component' of the number is 9.

Algebra II Class Worksheet #4 Unit 5

Graph each of the following numbers on the complex number plane. Label your graphs properly.

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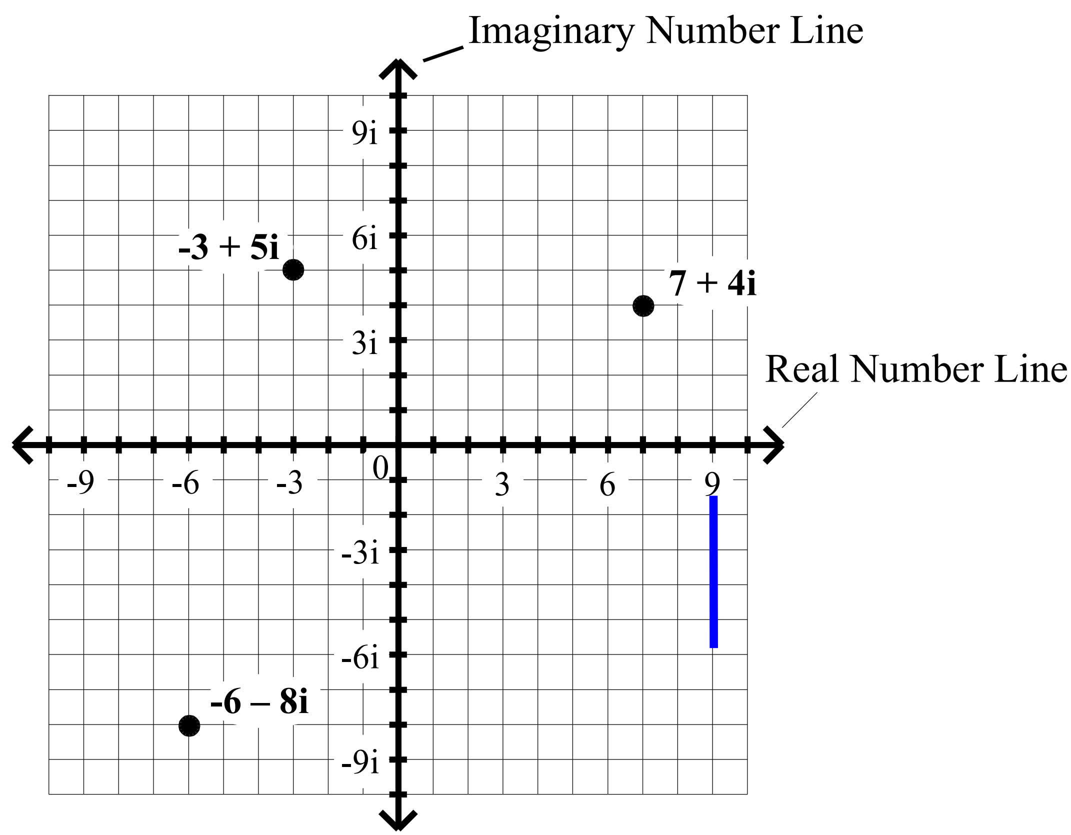

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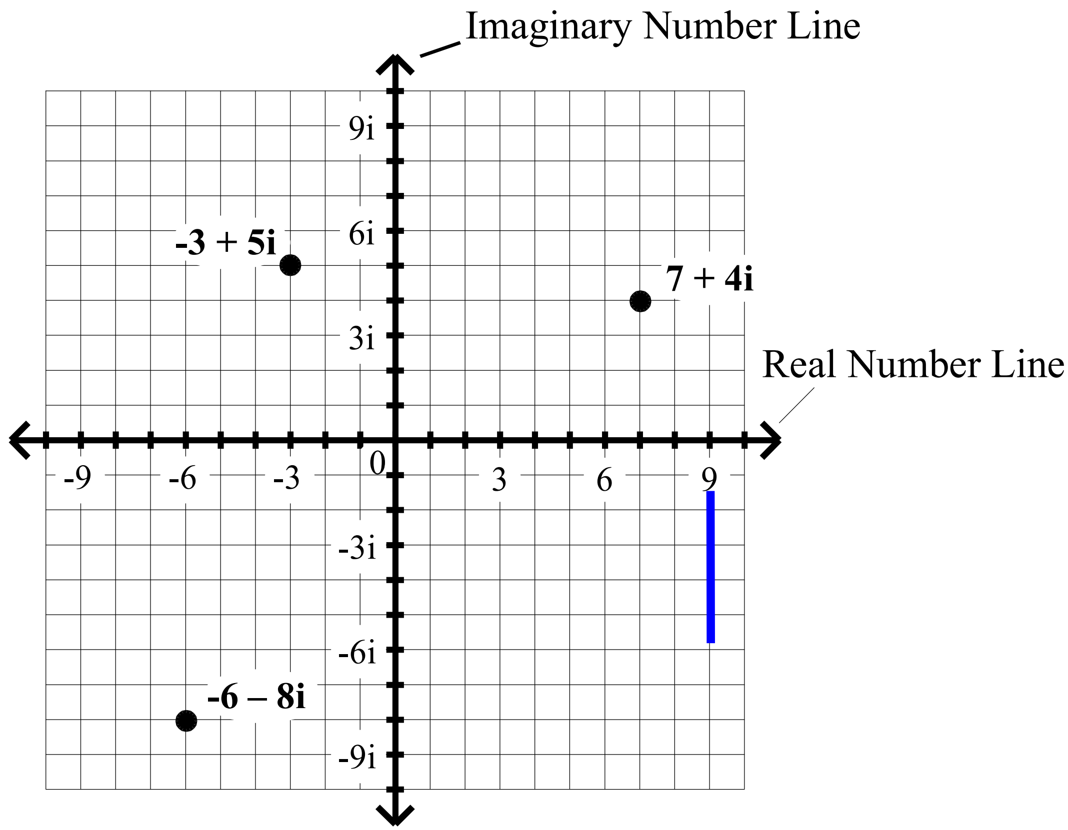

Graphing Complex Numbers

The 'real component' of the number is 9.

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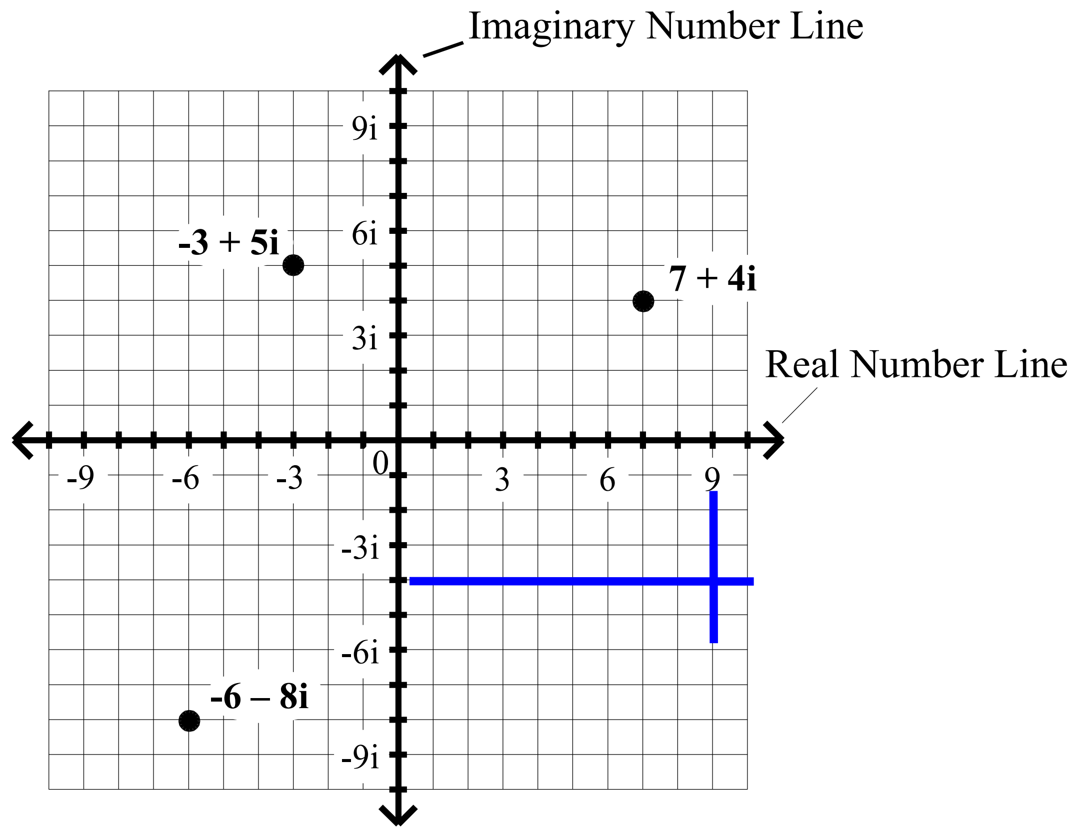

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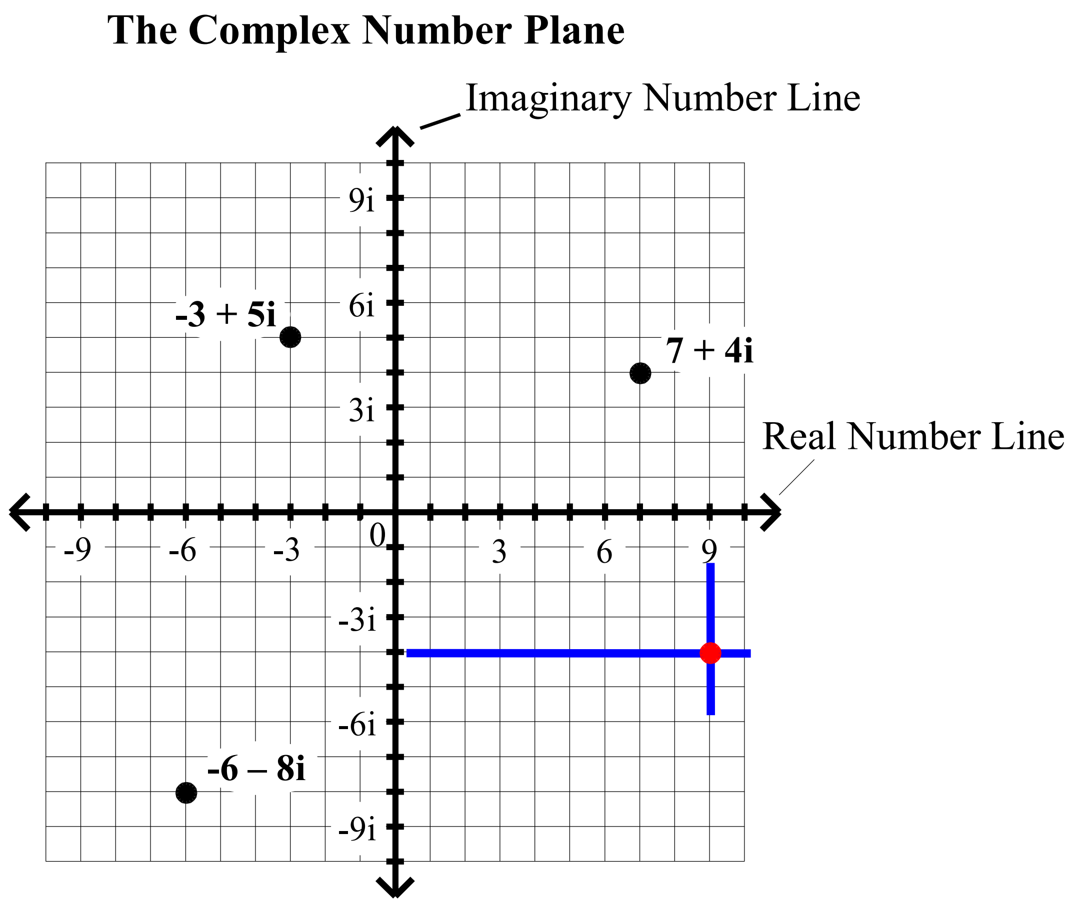

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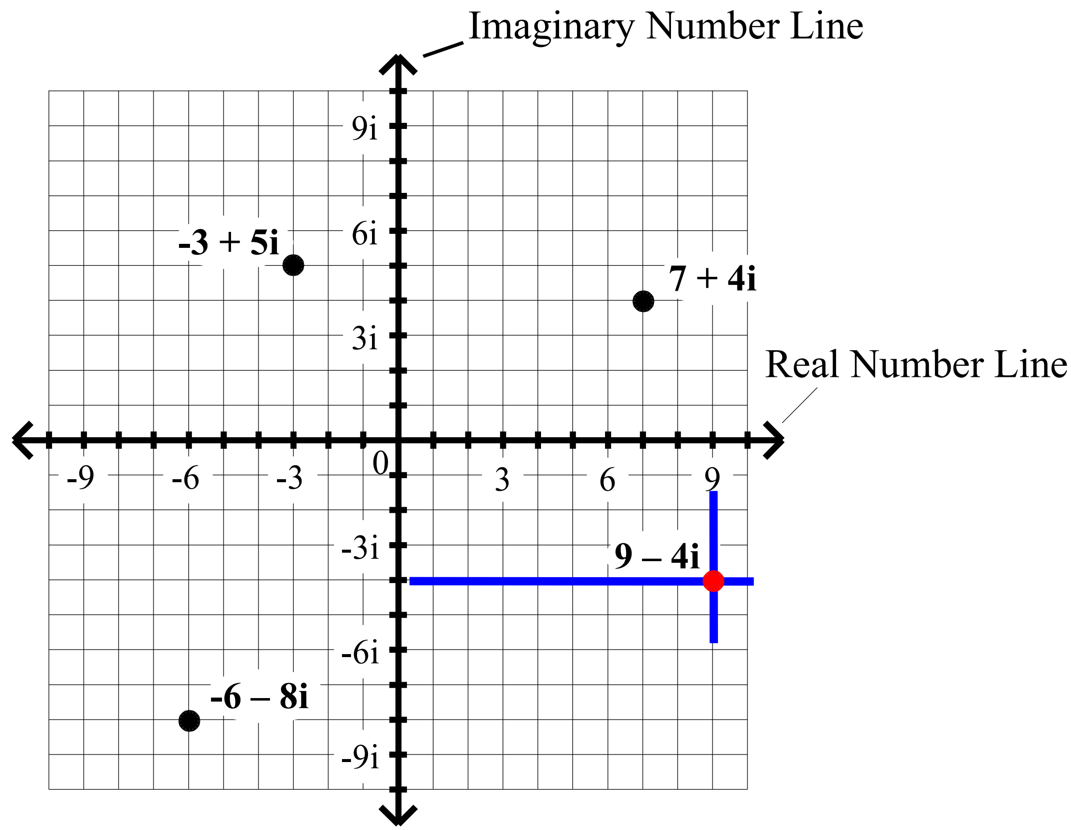

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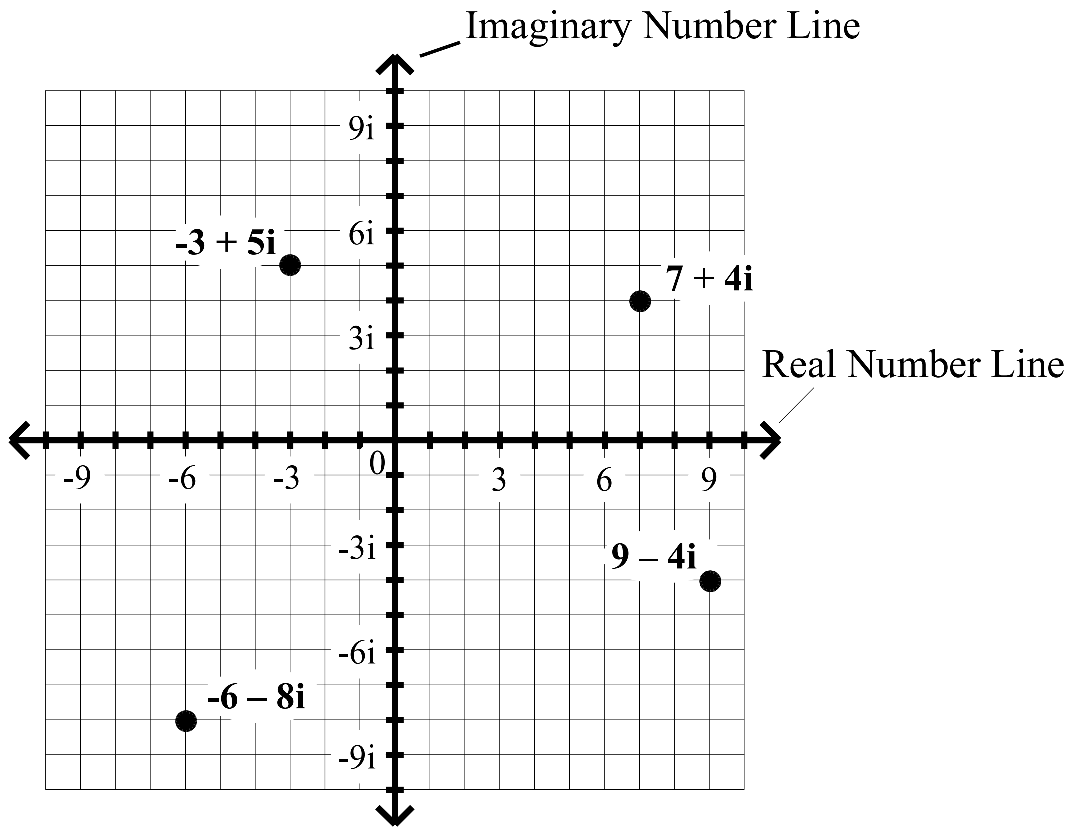

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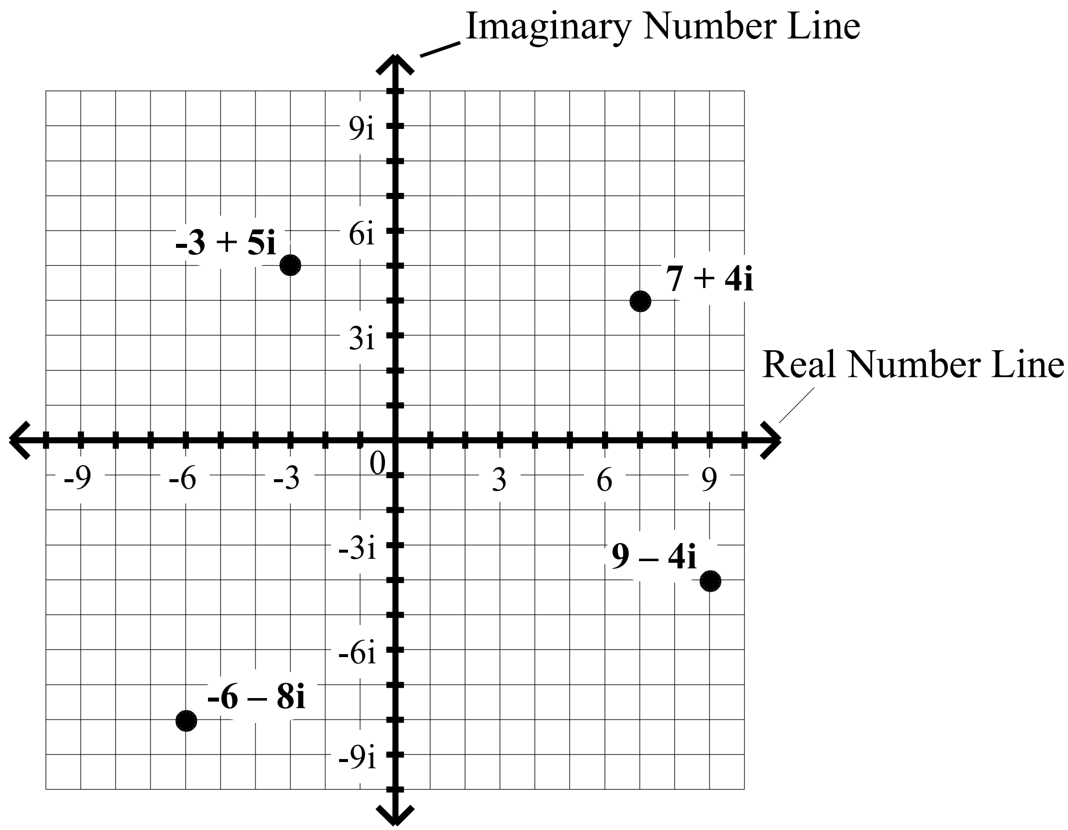

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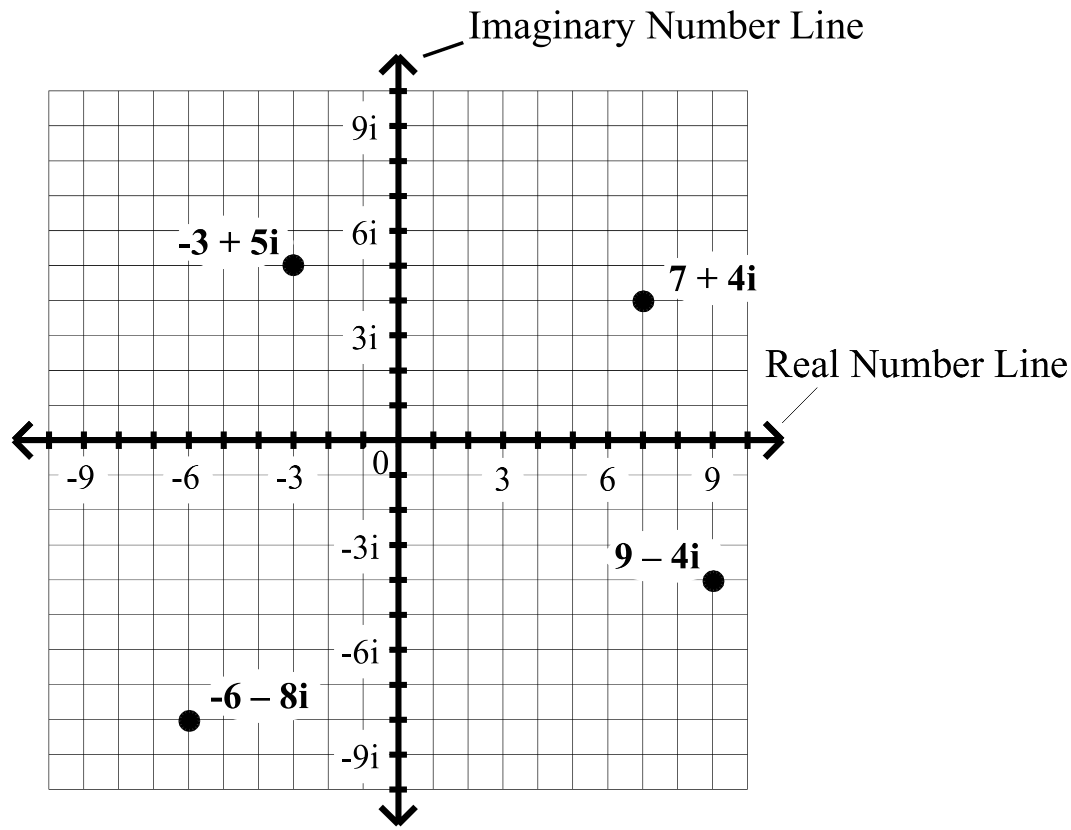

Graphing Complex Numbers

Any real number is associated with a unique point on the real number line.

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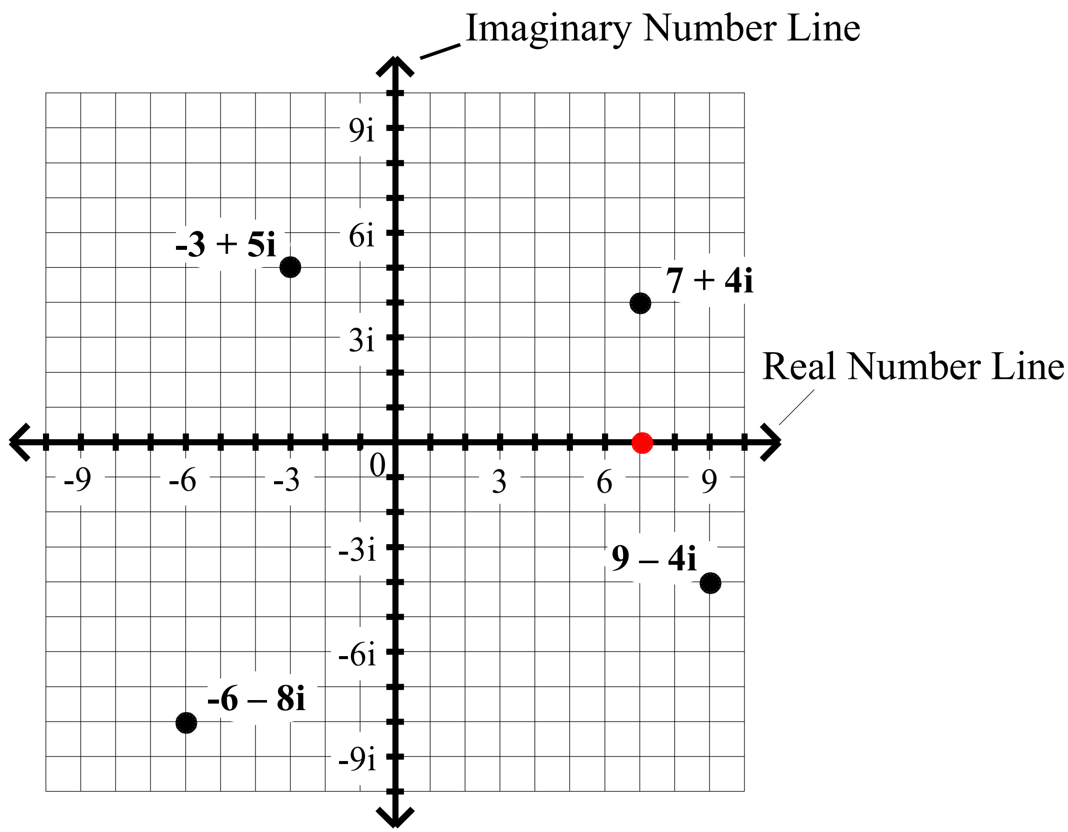

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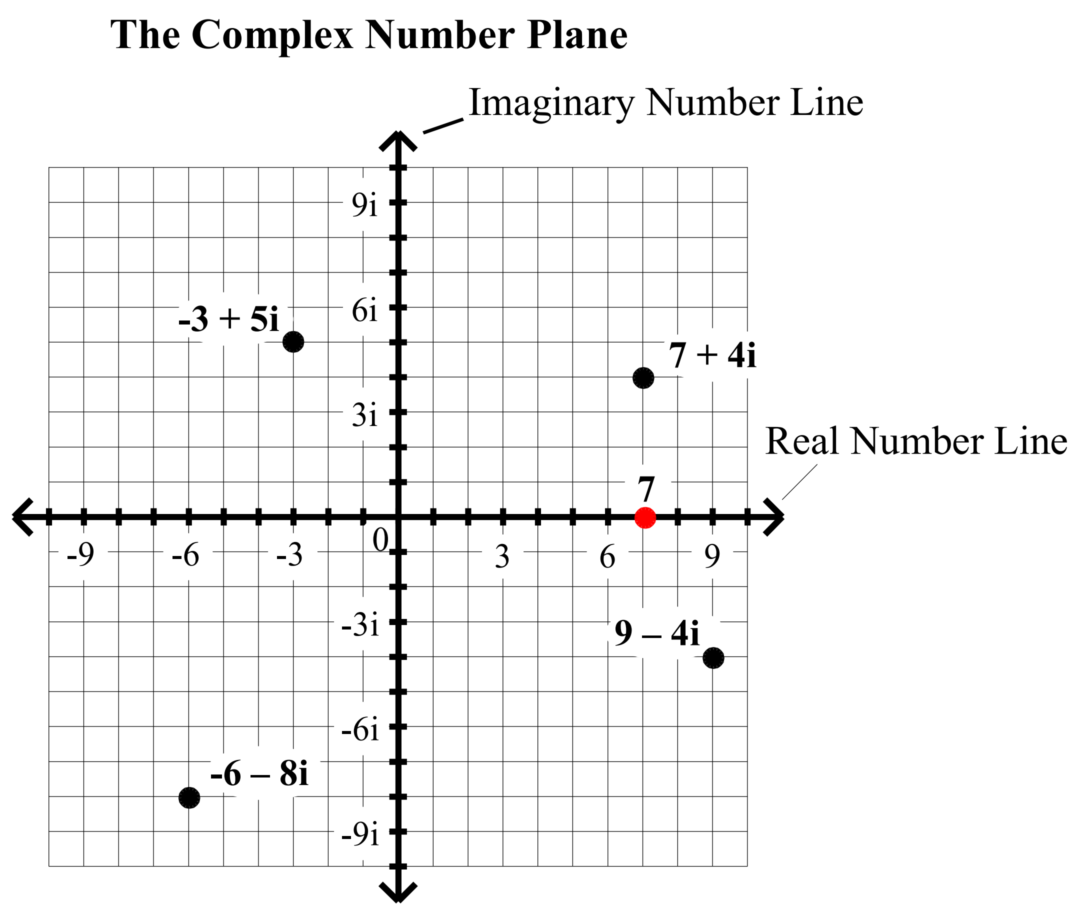

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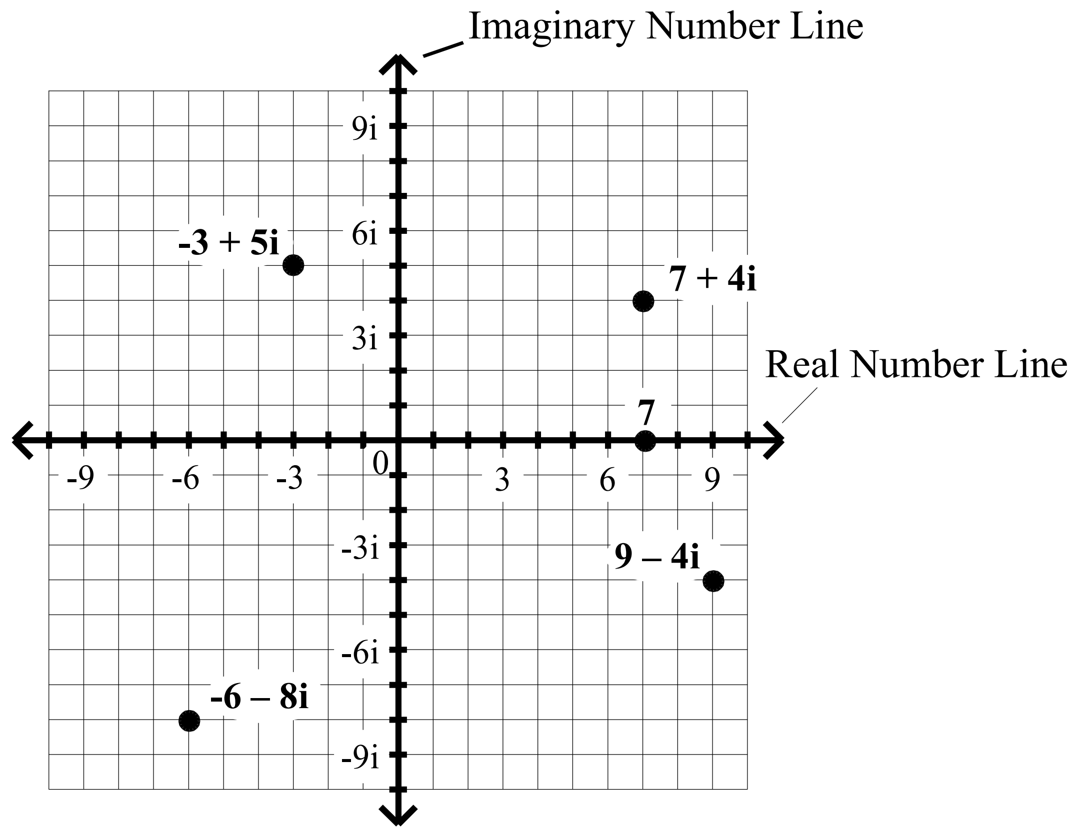

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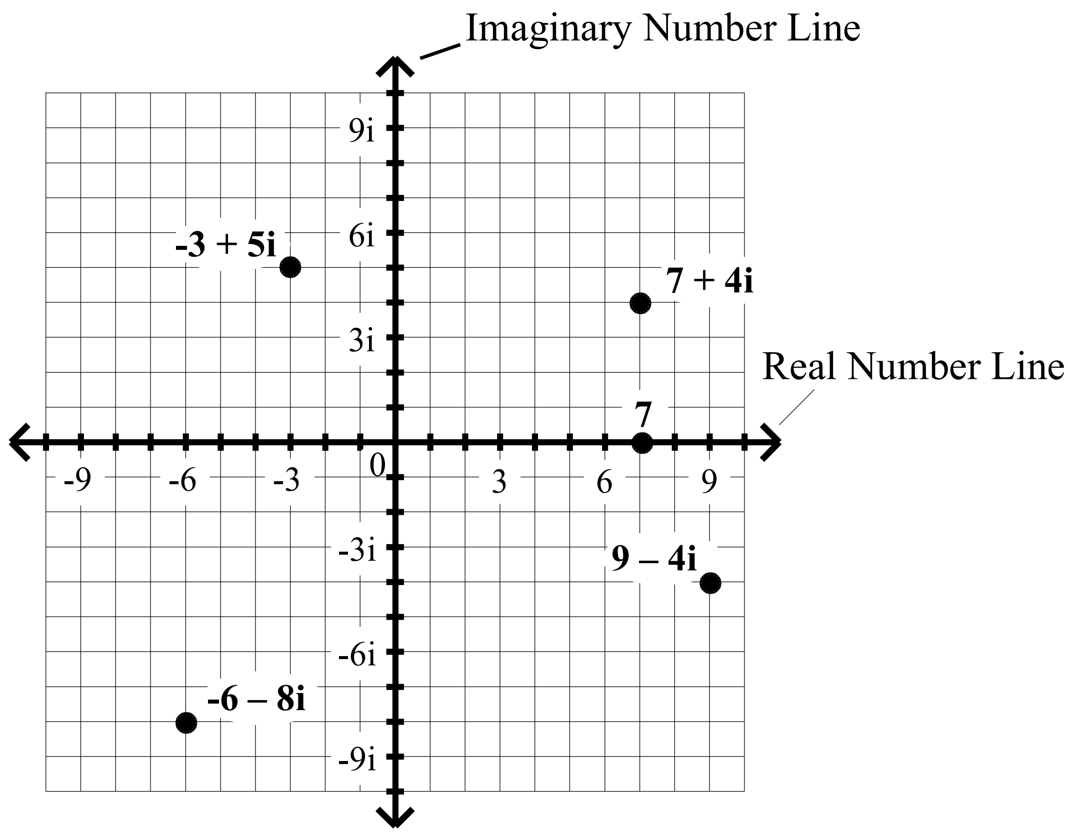

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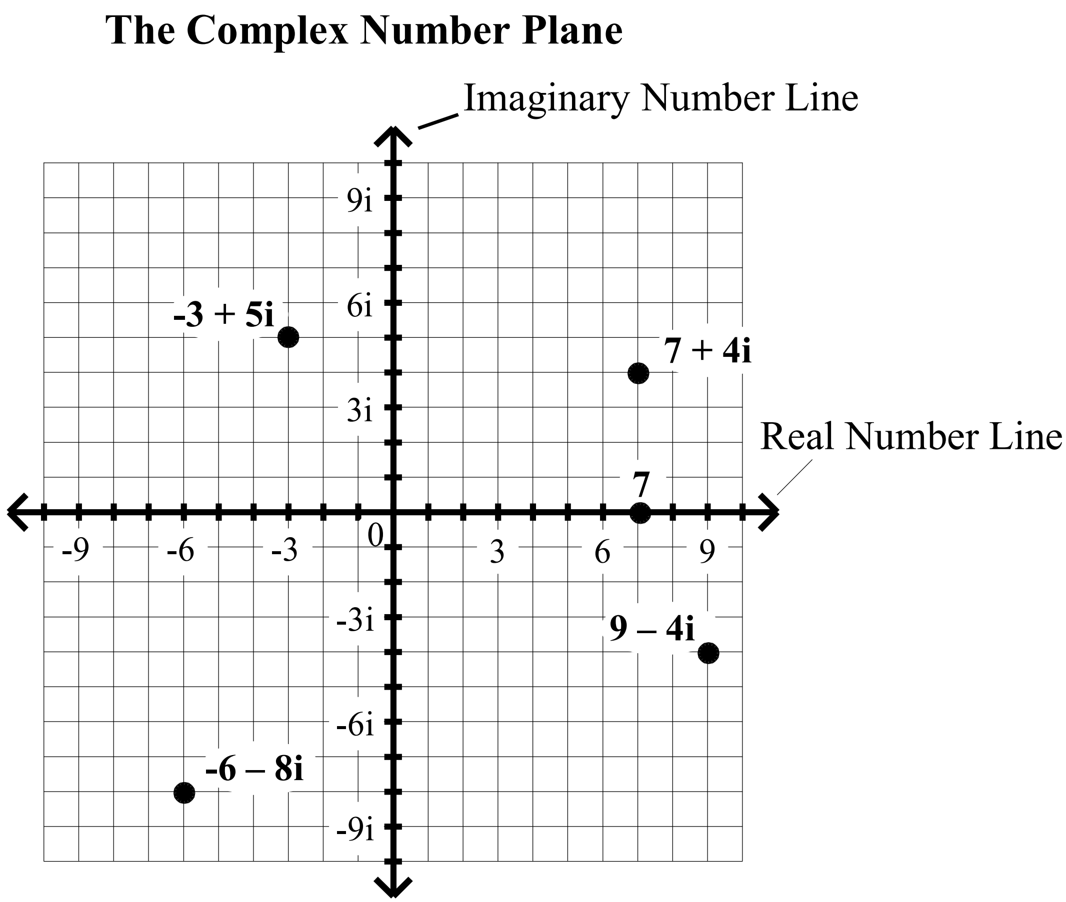

Graphing Complex Numbers

Any imaginary number is associated with a unique point on the imaginary number line.

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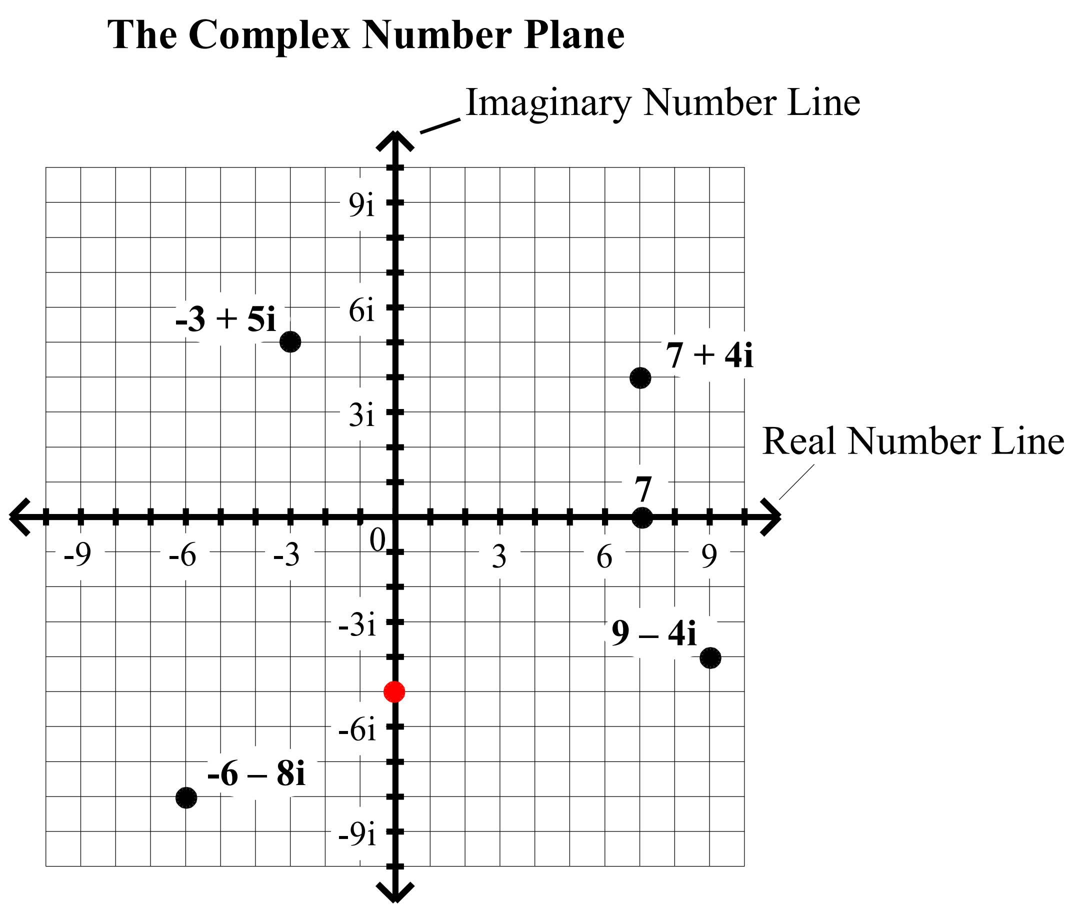

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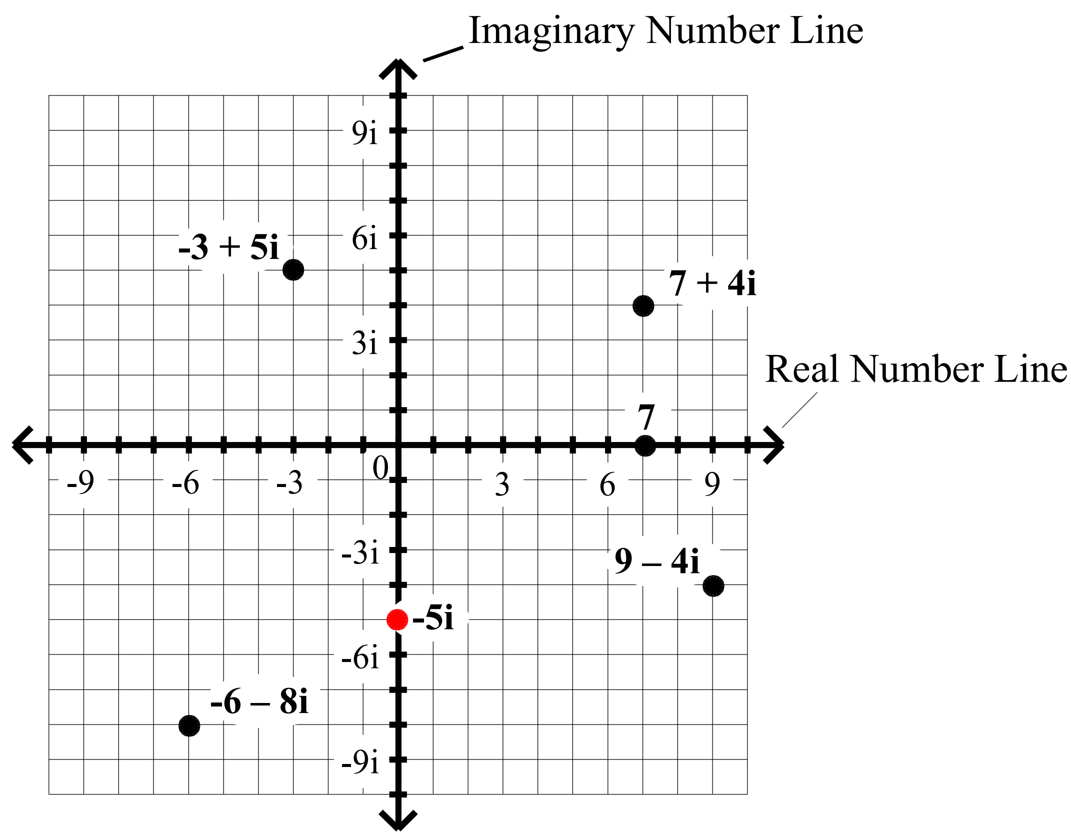

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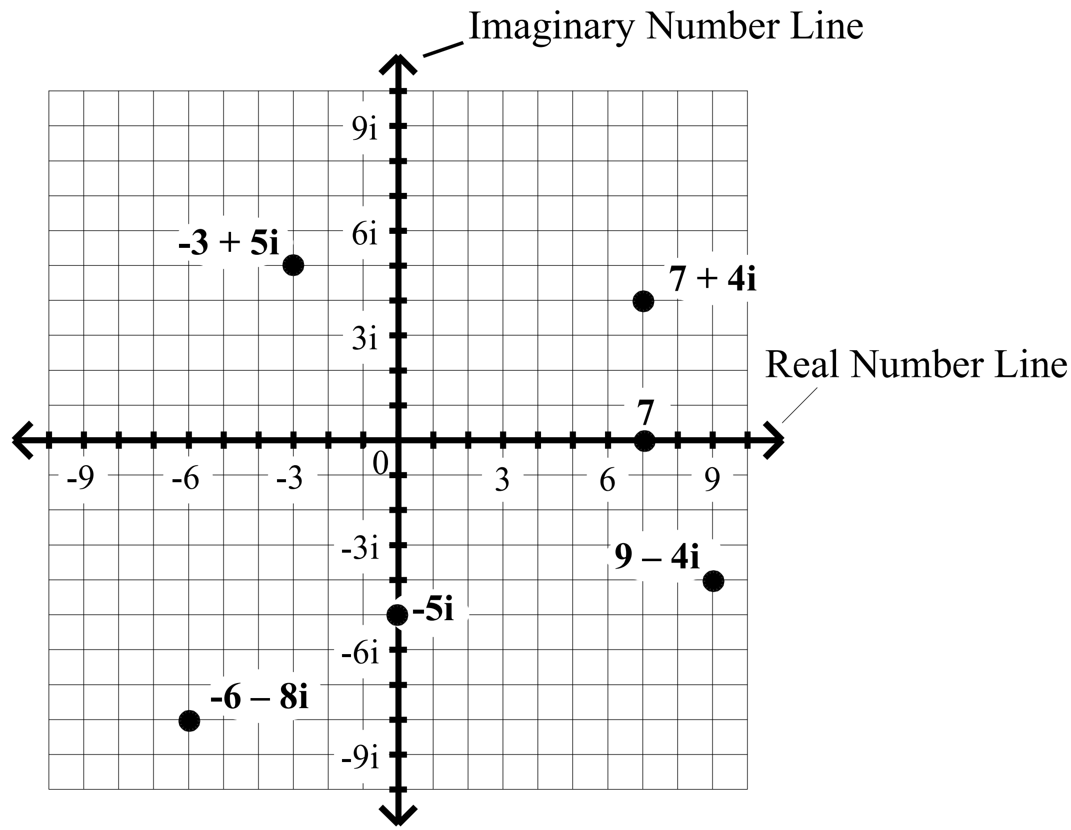


Algebra II Class Worksheet #4 Unit 5

Find the indicated absolute values. Express your answers in simplest form.

7. $|4 + 3i| =$ ________

8. $|-2 + 3i| =$ ________

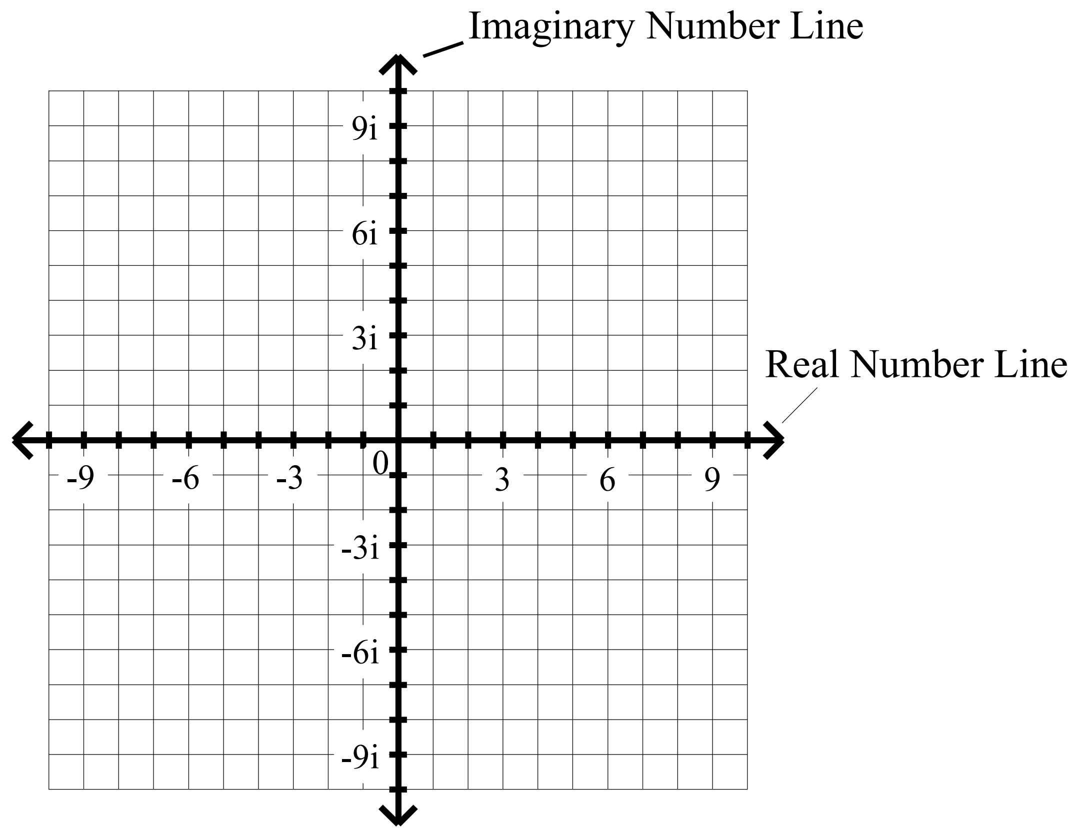
9. $|3 - 6i| =$ ________

10. $|-1 - 4i| =$ ________

11. $|-4i| =$ ________

12. $|7| =$ ________

The Complex Number Plane



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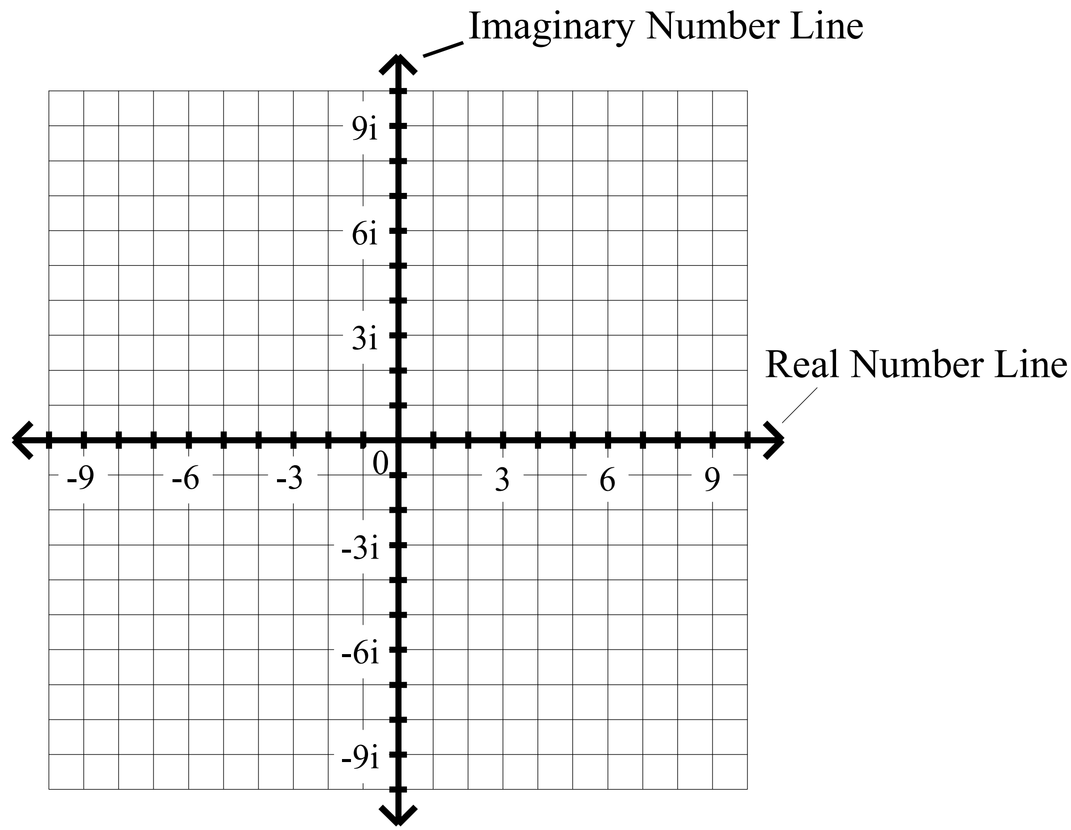
12. | 7 | = ________

The Absolute Value of Complex Numbers

The Complex Number Plane



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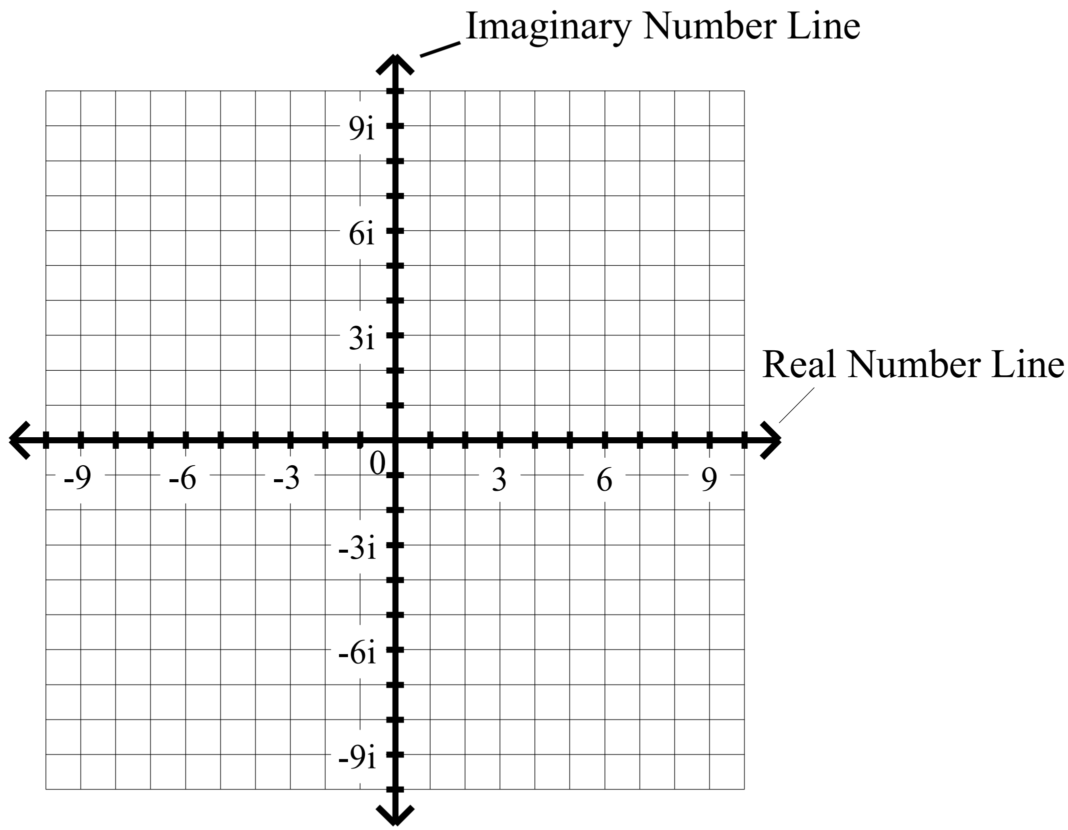

The Absolute Value of Complex Numbers

The absolute value of a real number gives its distance from zero on the real number line.

Algebra II Class Worksheet #4 Unit 5

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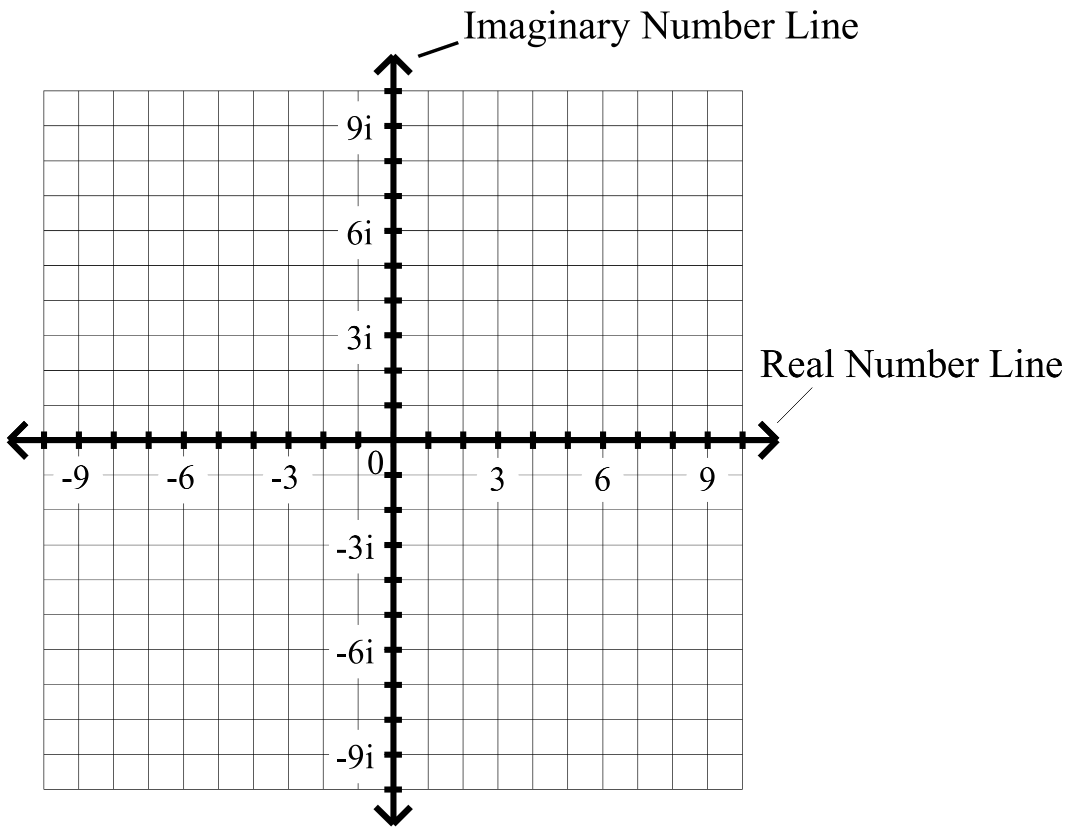

The Absolute Value of Complex Numbers

The absolute value of a real number gives its distance from zero on the real number line. This 'definition' holds true for complex numbers as well.

Algebra II Class Worksheet #4 Unit 5

Find the indicated absolute values. Express your answers in simplest form.

7. $|4 + 3i| =$ ________

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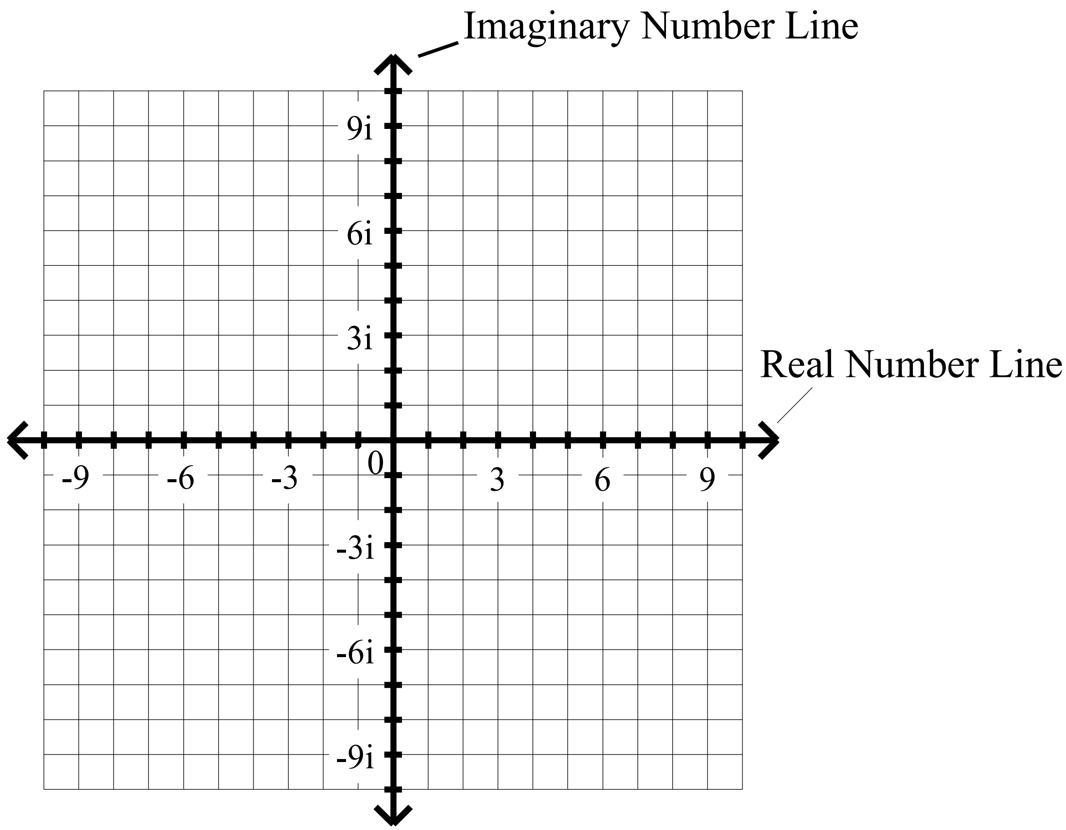


The Absolute Value of Complex Numbers

The absolute value of a real number gives its <u>distance</u> from zero on the real number line. This 'definition' holds true for complex numbers as well. Of course, distance is <u>never</u> <u>negative</u>

Algebra II Class Worksheet #4 Unit 5

Find the indicated absolute values. Express your answers in simplest form.

7. $|4 + 3i| =$ ________

8. $|-2 + 3i| =$ ________

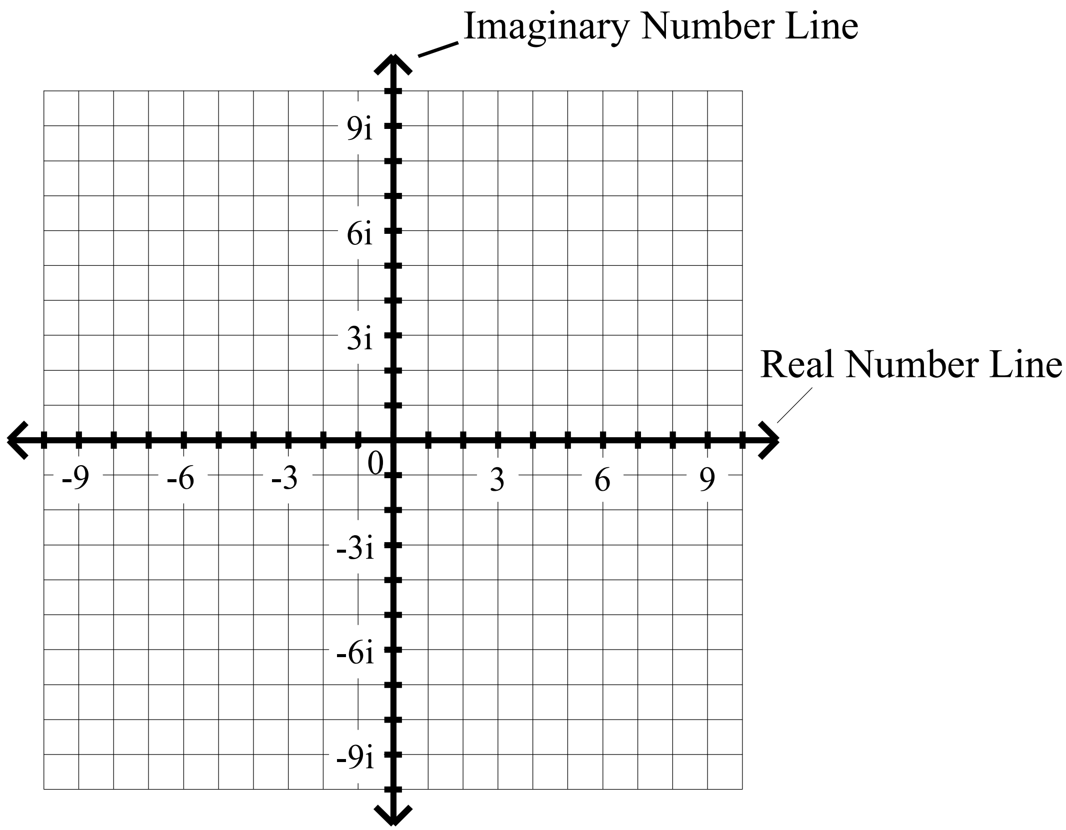
9. $|3 - 6i| =$ ________

10. $|-1 - 4i| =$ ________

11. $|-4i| =$ ________

12. $|7| =$ ________

The Complex Number Plane



The Absolute Value of Complex Numbers

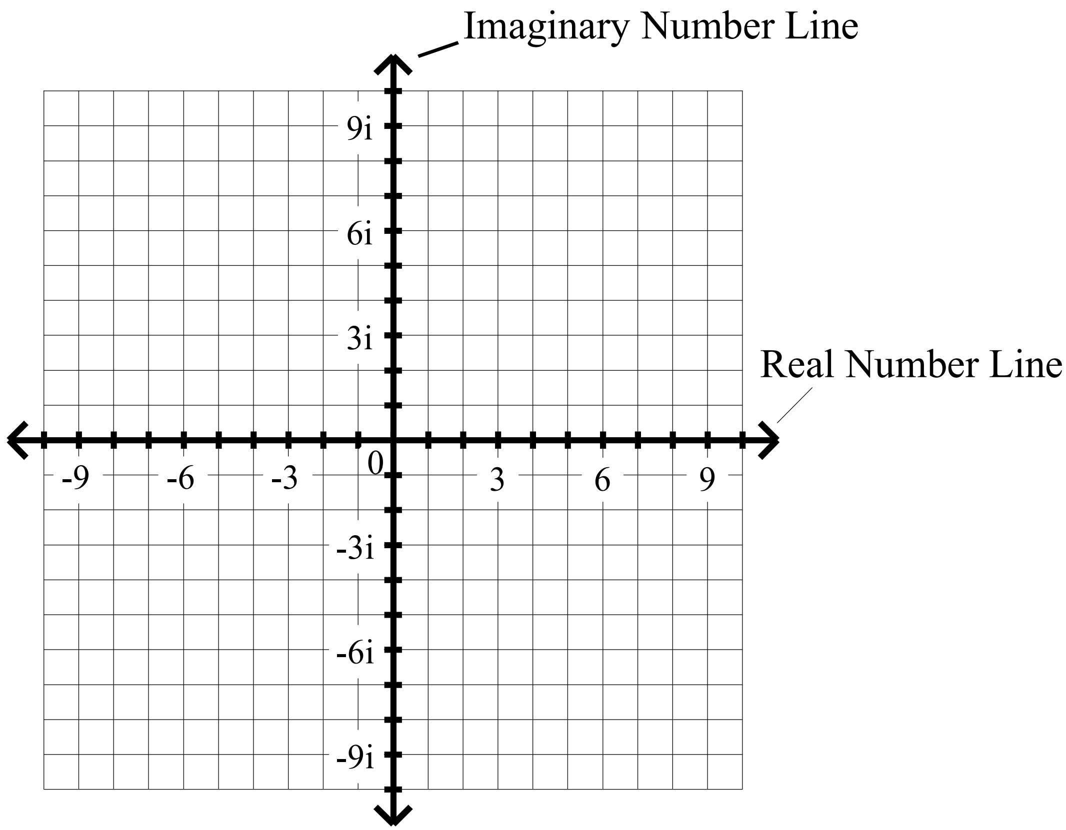
The absolute value of a real number gives its distance from zero on the real number line. This 'definition' holds true for complex numbers as well. Of course, distance is never negative and is always a real number.

Algebra II   Class Worksheet #4   Unit 5

Find the indicated absolute values. Express your answers in simplest form.

7. $|\,4 + 3i\,| =$ ________

The Complex Number Plane



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The Absolute Value of Complex Numbers

Algebra II Class Worksheet #4 Unit 5

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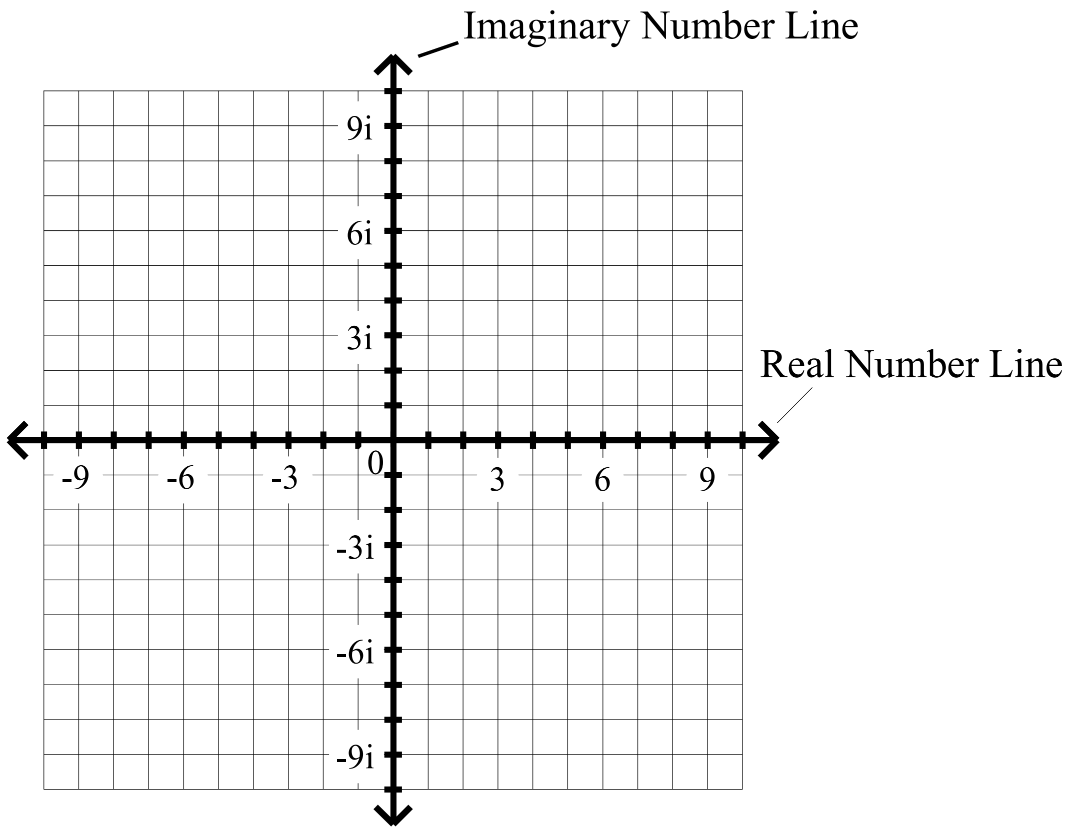
The Absolute Value of Complex Numbers

The Complex Number Plane



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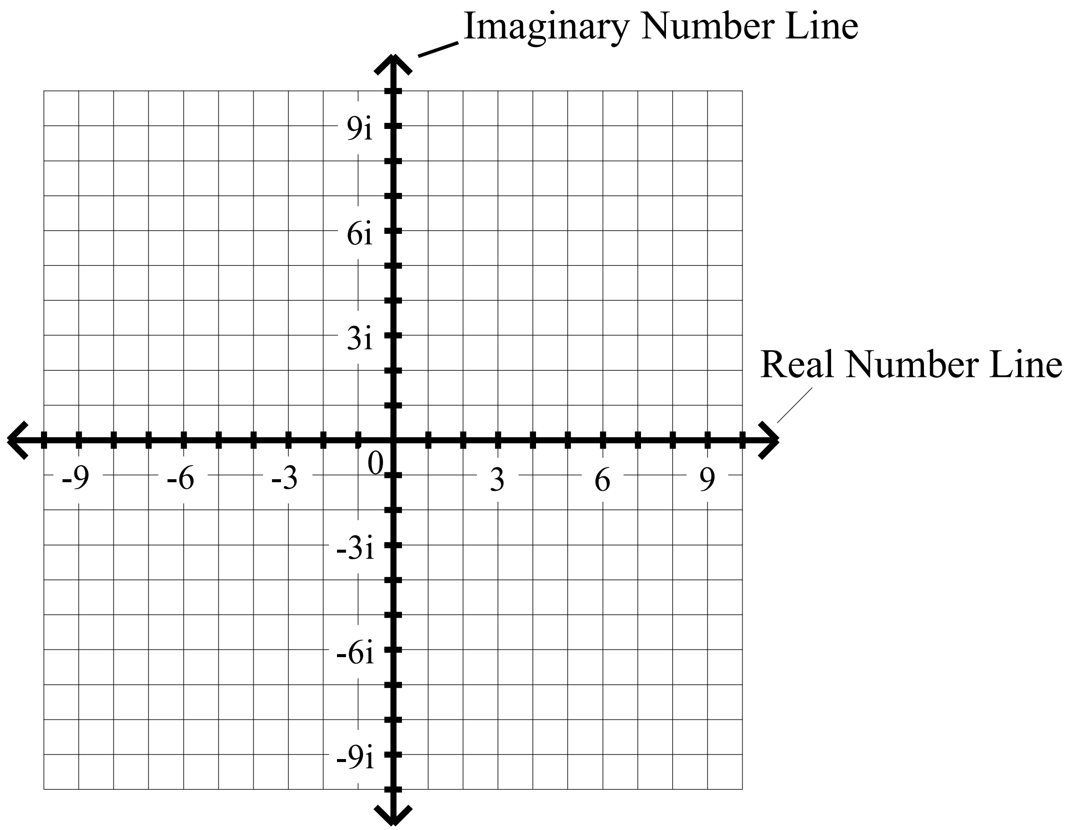

The Absolute Value of Complex Numbers

The absolute value of the complex number 4 + 3i is the distance this number is from zero.

Algebra II Class Worksheet #4 Unit 5

Find the indicated absolute values. Express your answers in simplest form.

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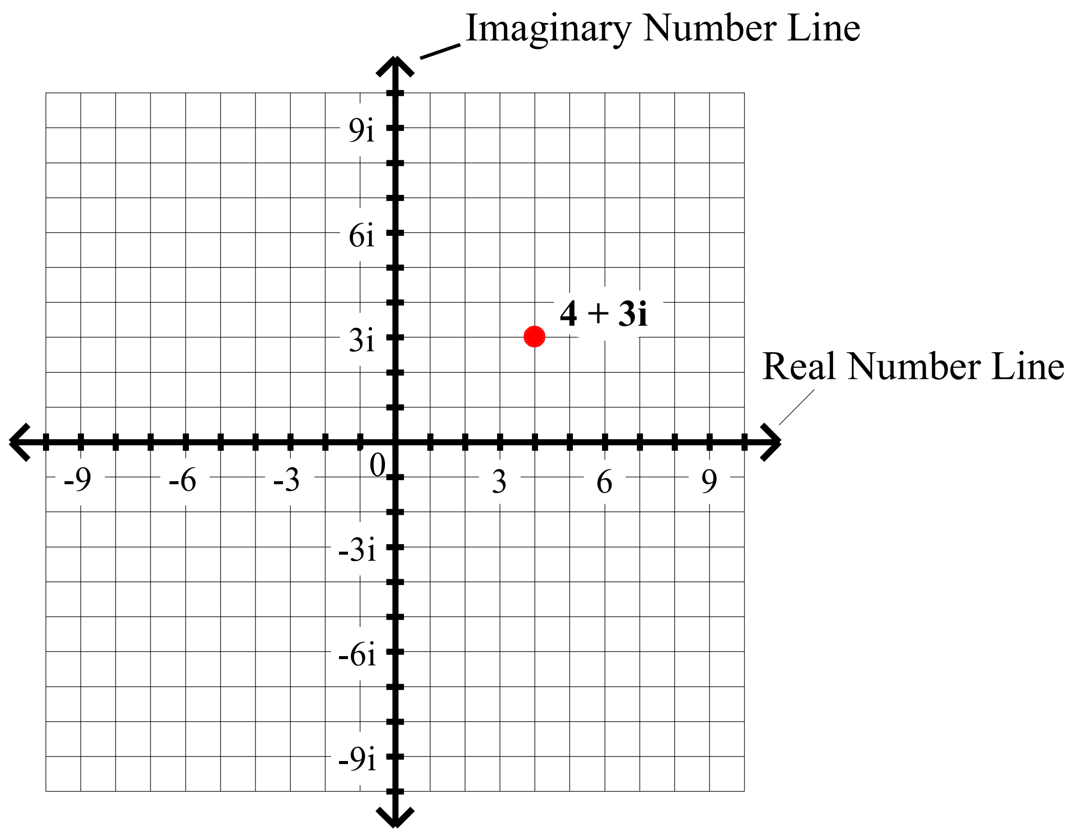

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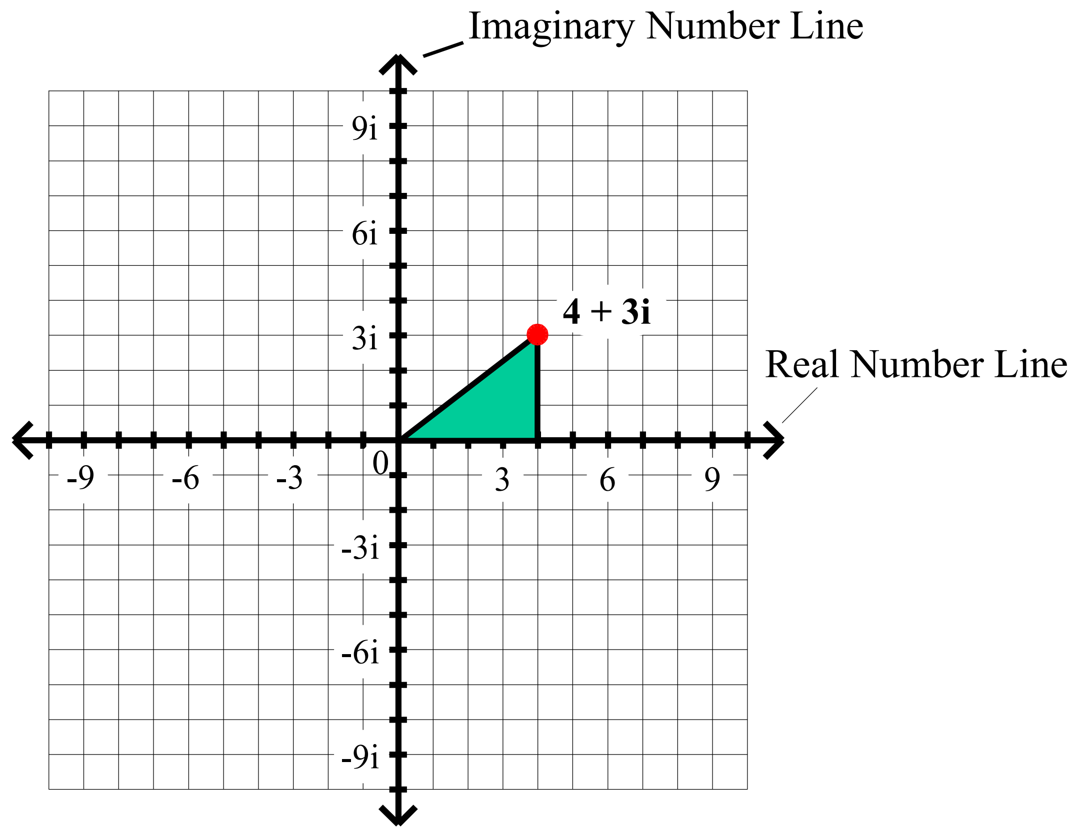

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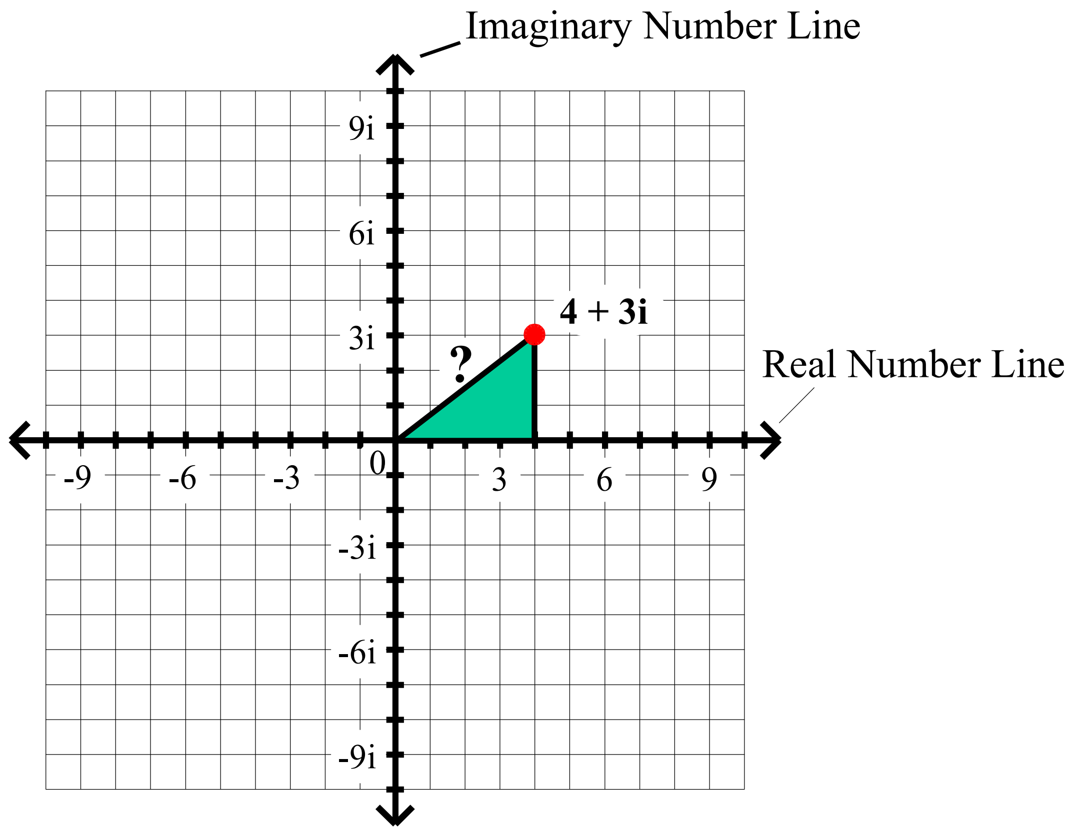

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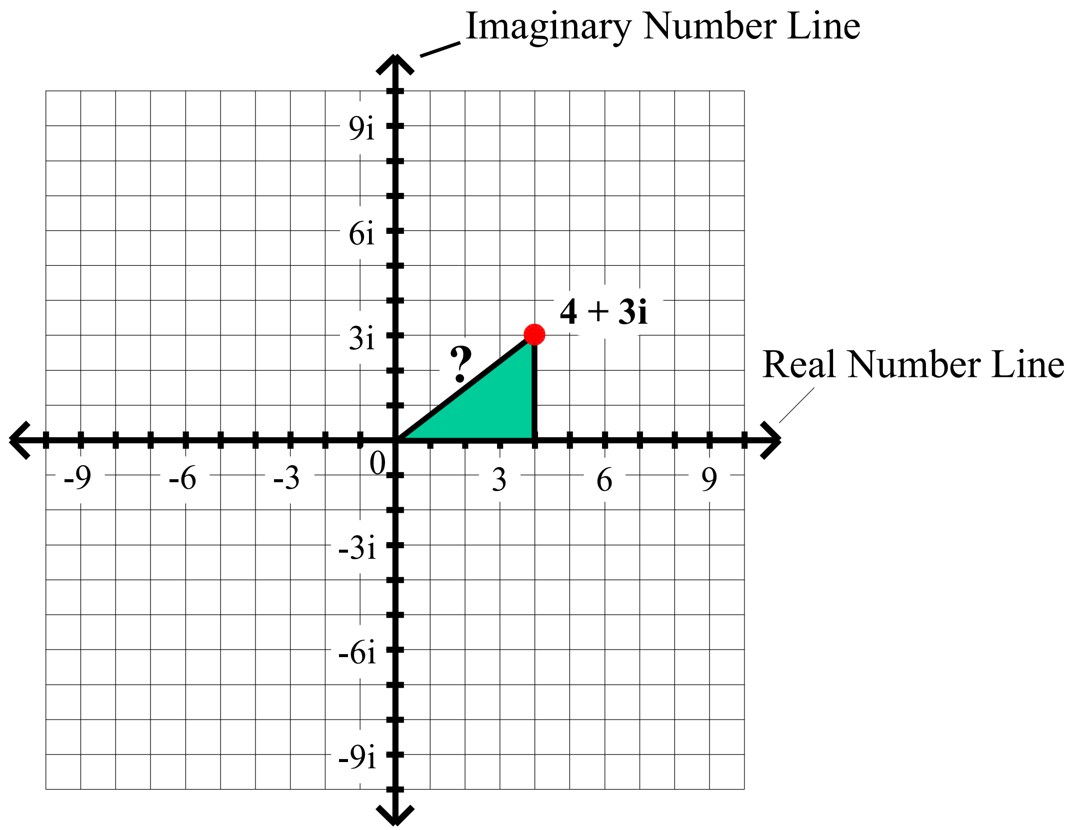

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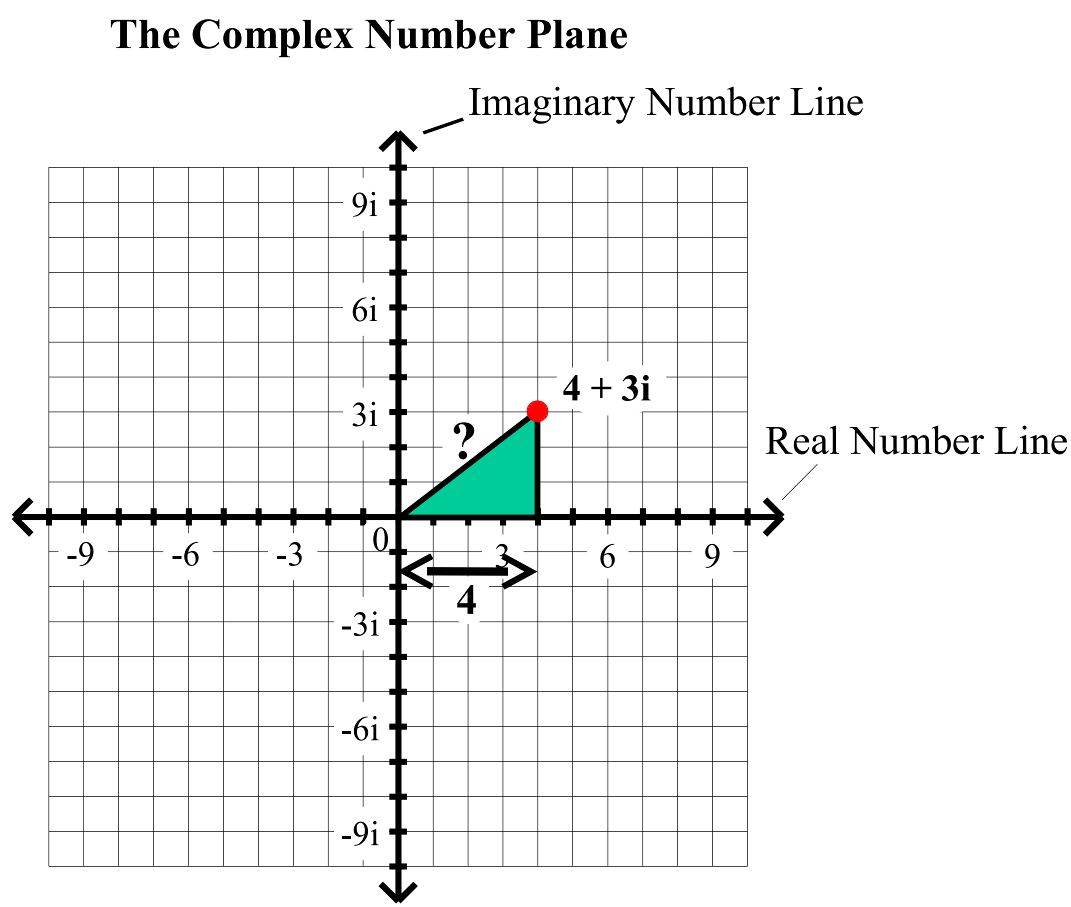

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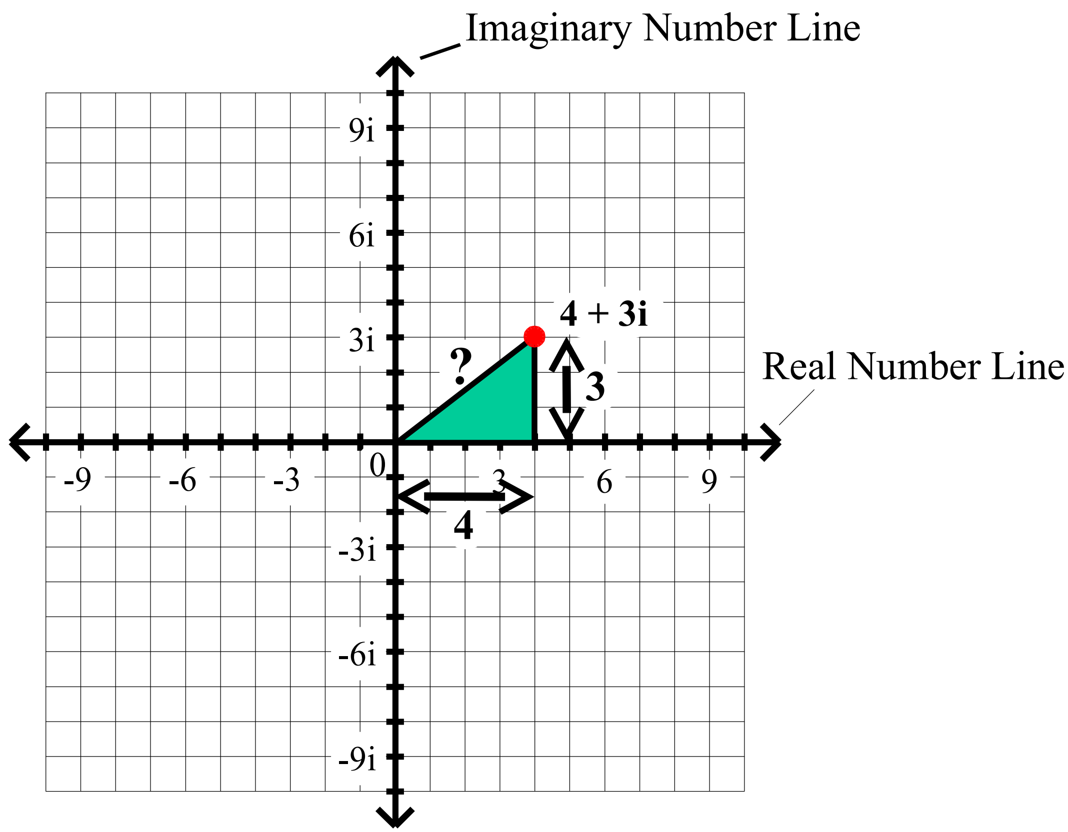

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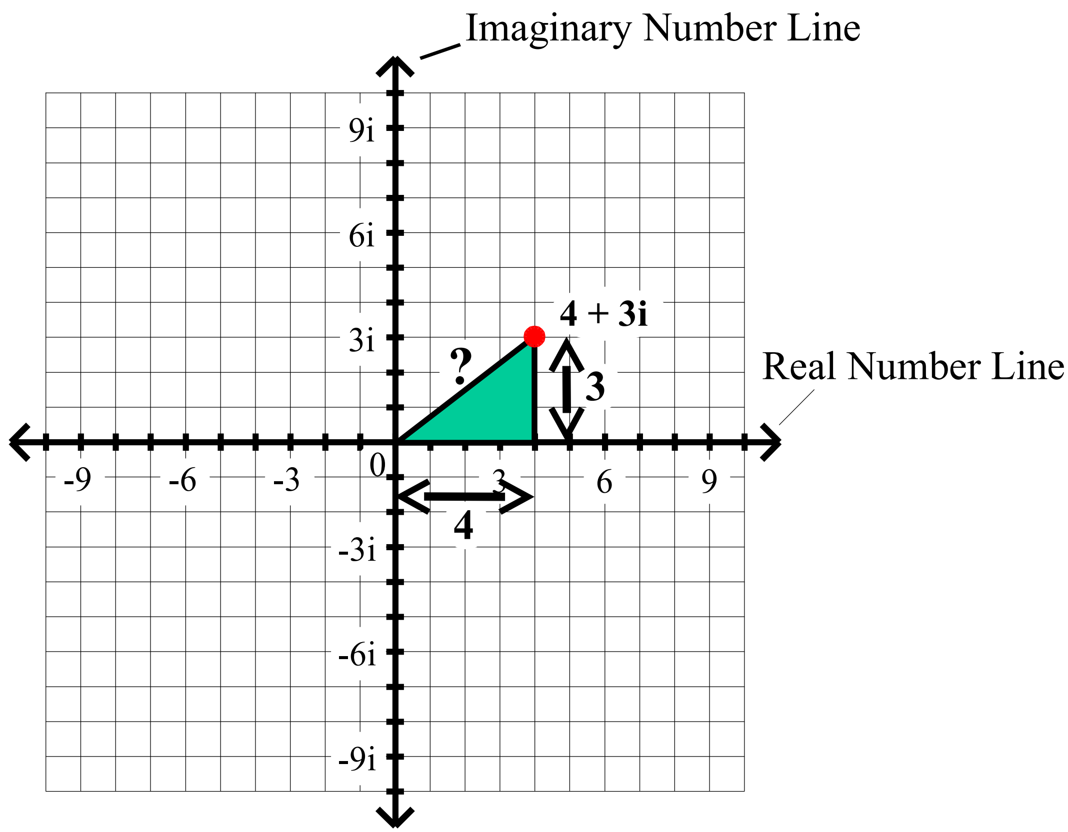

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Algebra II Class Worksheet #4 Unit 5

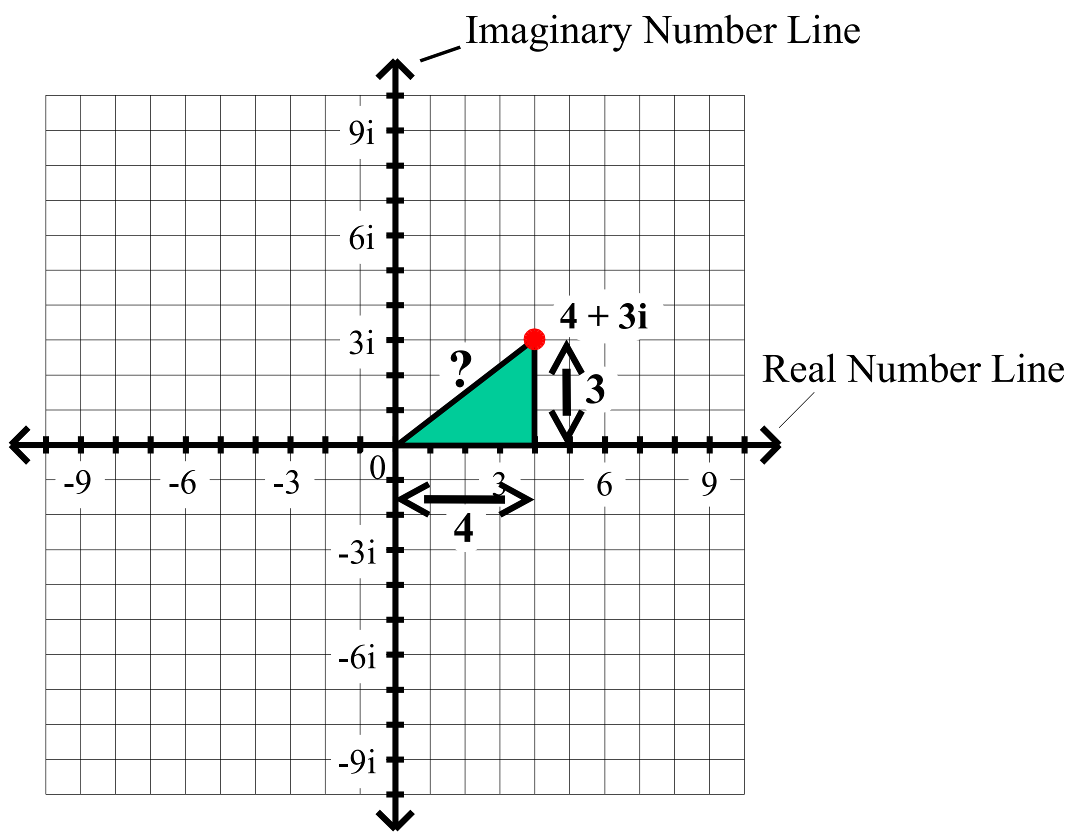
Find the indicated absolute values. Express your answers in simplest form.

7. $| 4 + 3i | =$ ________

$| 4 + 3i | = \sqrt{}$

8. $| -2 + 3i | =$ ________

The Complex Number Plane



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Algebra II Class Worksheet #4 Unit 5

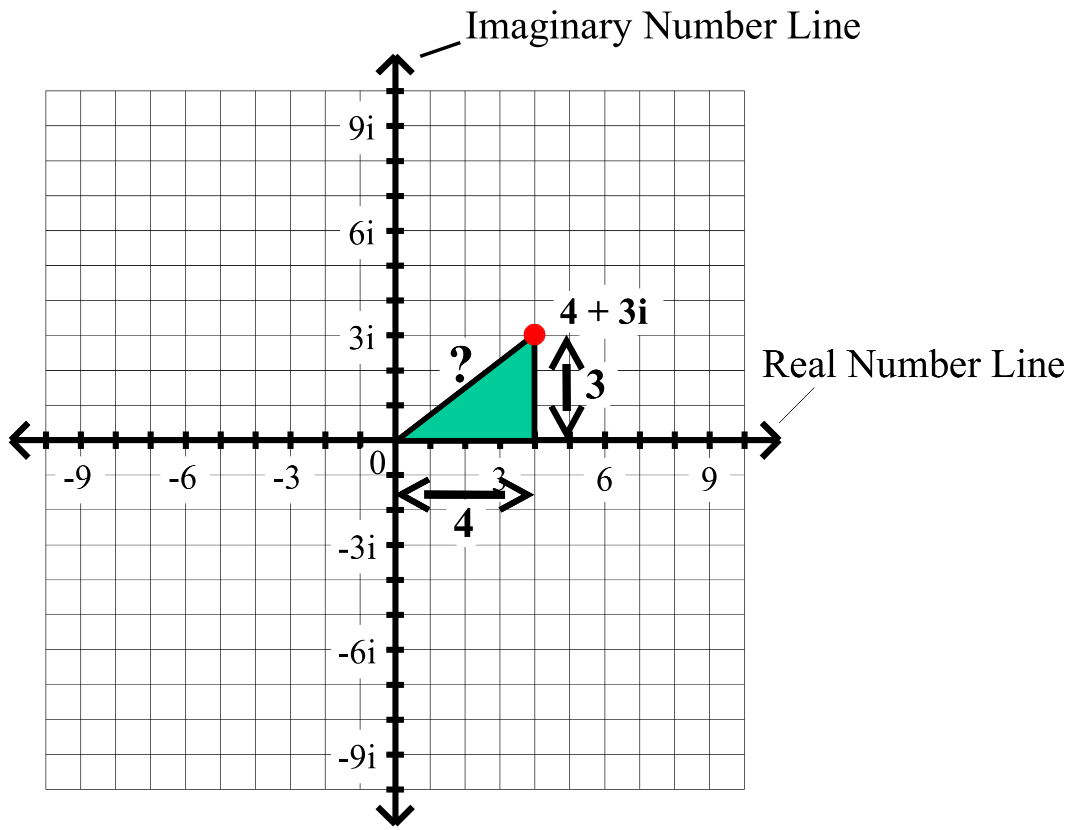
Find the indicated absolute values. Express your answers in simplest form.

7. $|4 + 3i| =$ ________

$|4 + 3i| = \sqrt{4^2}$

8. $|-2 + 3i| =$ ________

The Complex Number Plane



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Find the indicated absolute values. Express your answers in simplest form.

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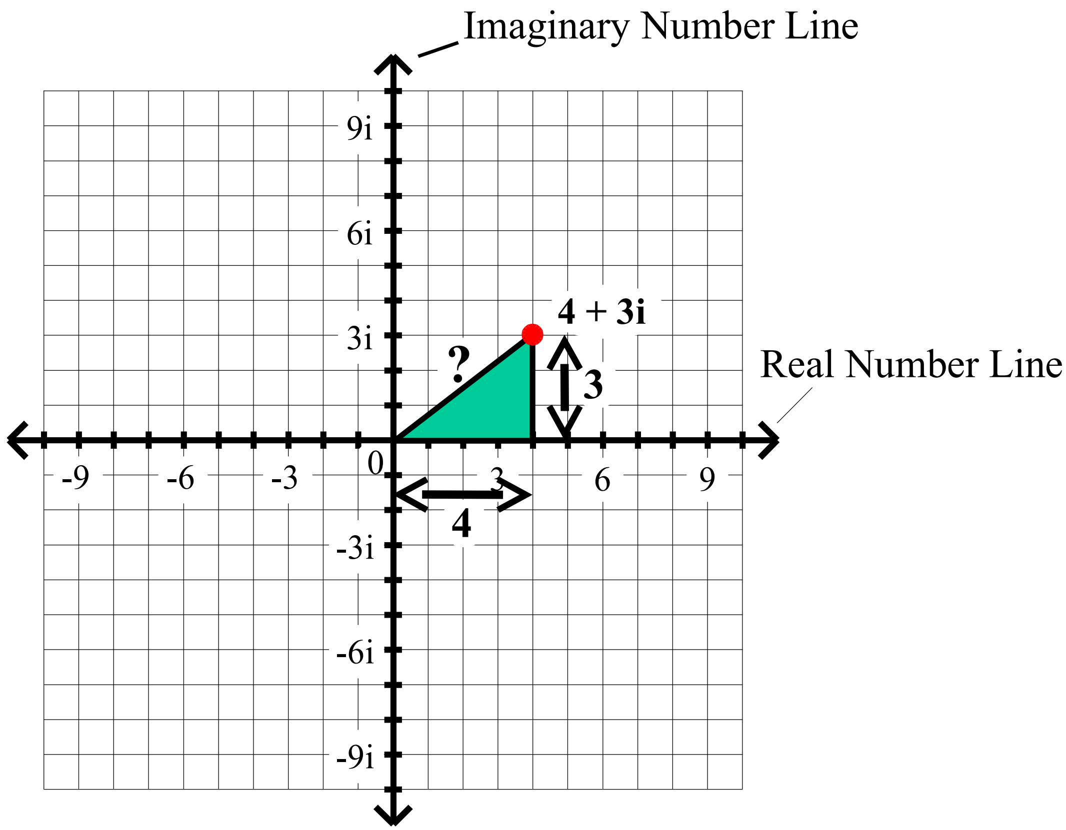
$| 4 + 3i | = \sqrt{4^2 + \quad}$

8. $| -2 + 3i | =$ ________

The Complex Number Plane



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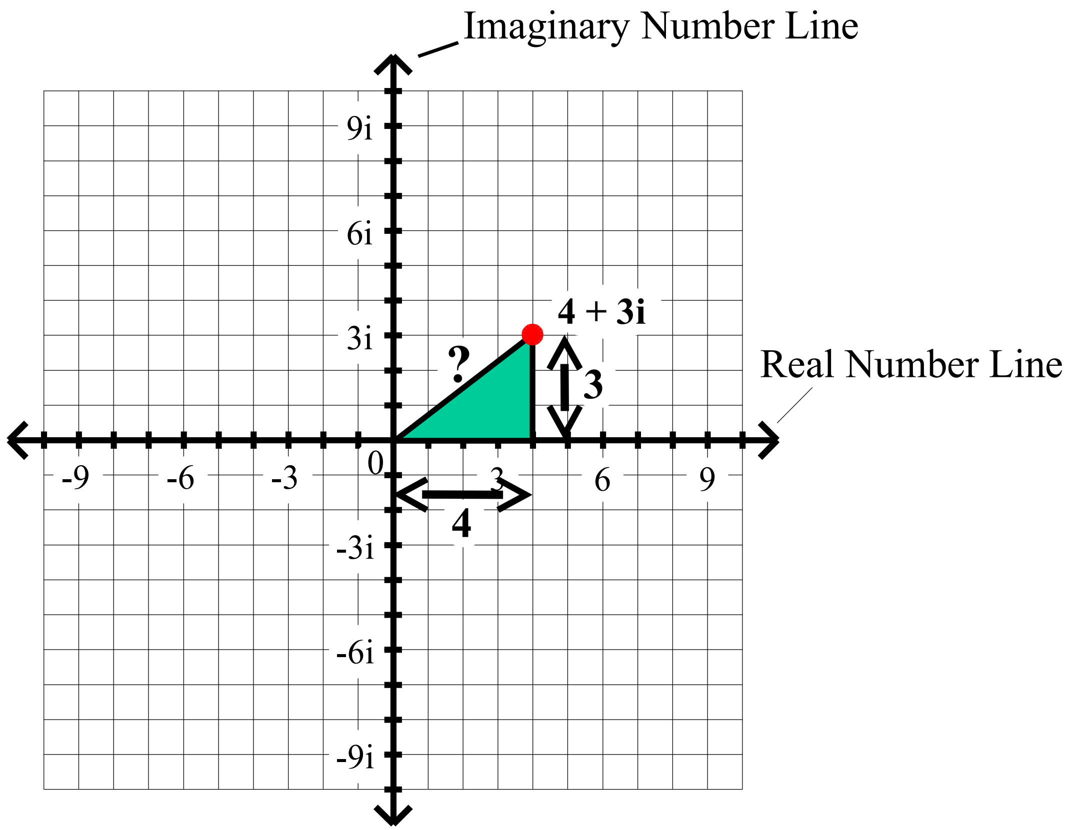
Find the indicated absolute values. Express your answers in simplest form.

7. $|4 + 3i| =$ ________

$|4 + 3i| = \sqrt{4^2 + 3^2}$

8. $|-2 + 3i| =$ ________

The Complex Number Plane



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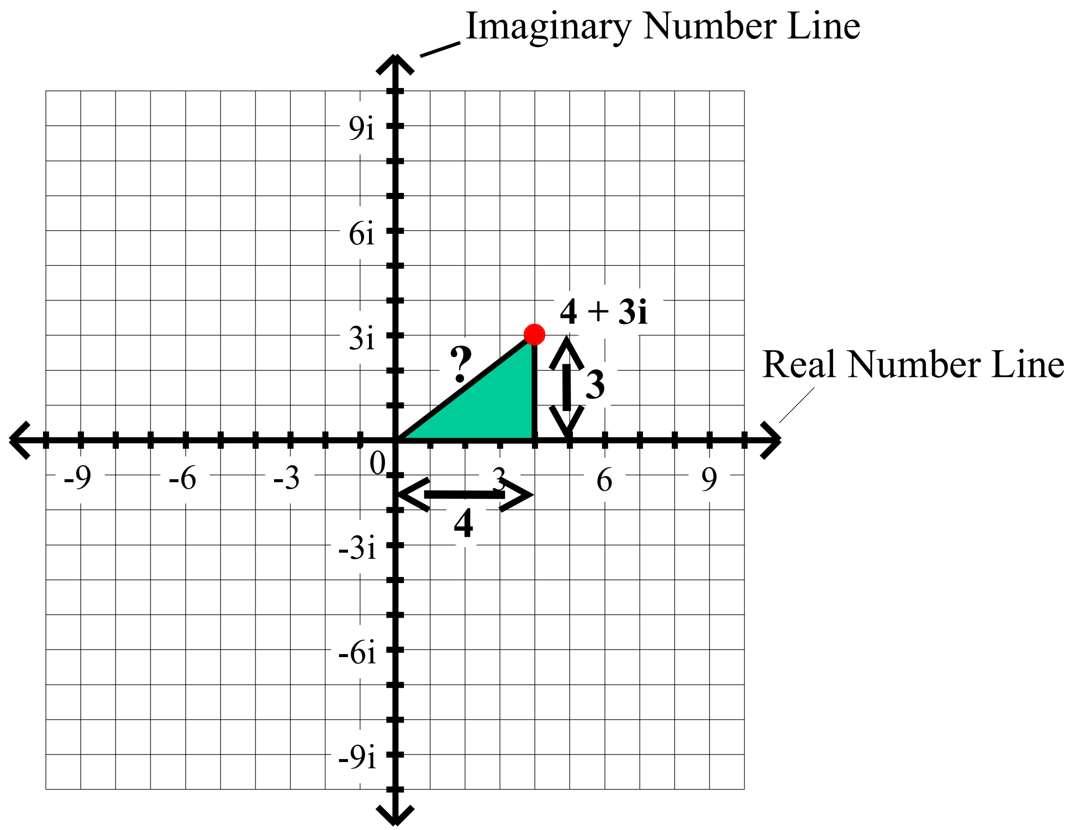

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Find the indicated absolute values. Express your answers in simplest form.

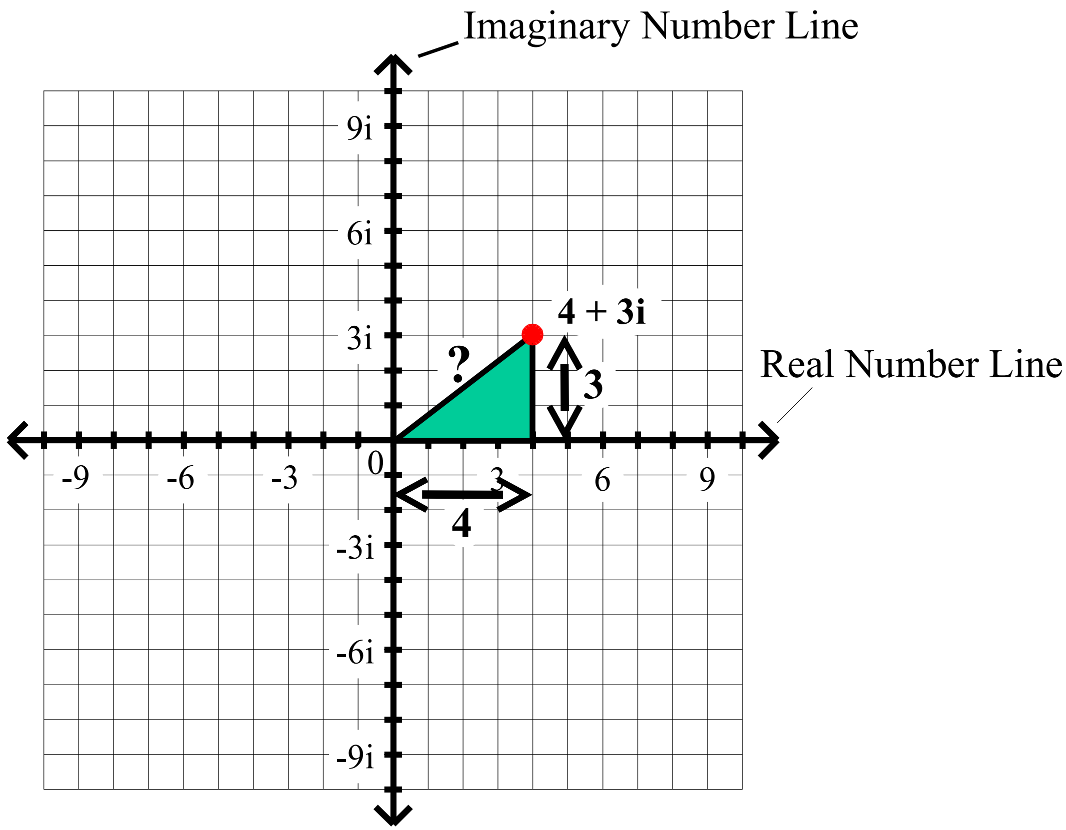
7. $|4 + 3i| =$ ________

$|4 + 3i| = \sqrt{4^2 + 3^2} =$

$|4 + 3i| = \sqrt{16 + 9}$

8. $|-2 + 3i| =$ ________

The Complex Number Plane



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$|4 + 3i| = \sqrt{4^2 + 3^2} =$

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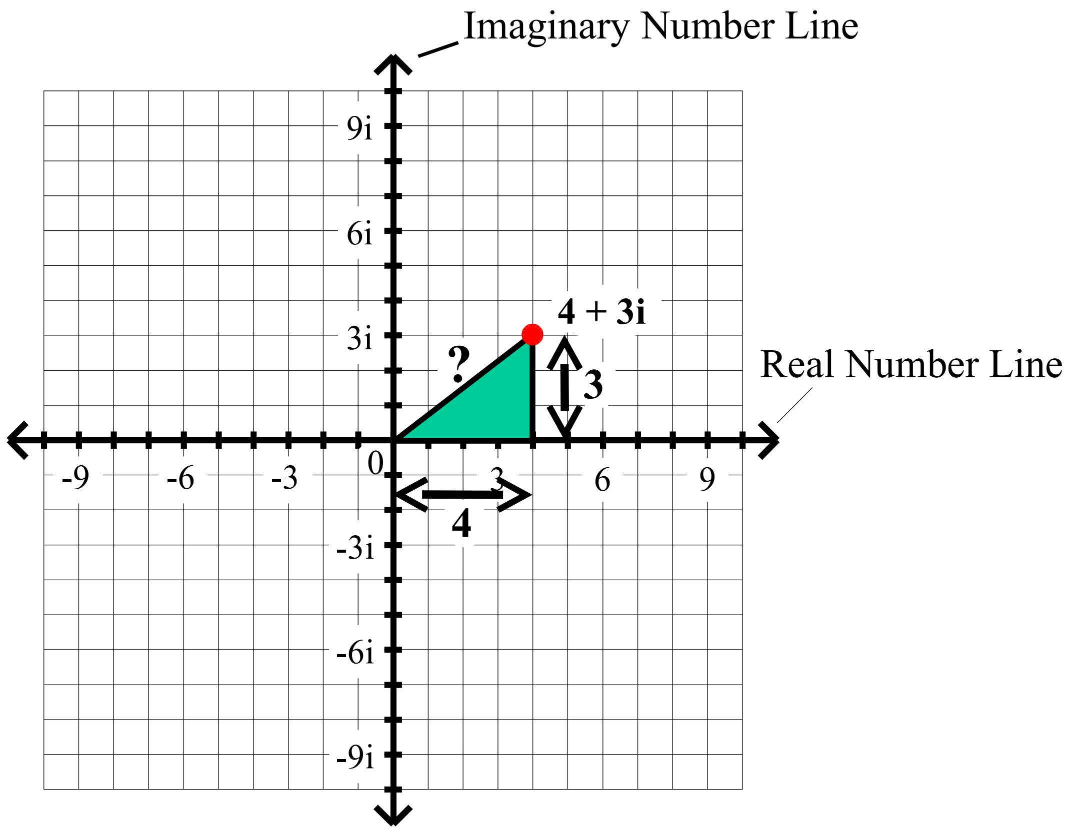

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Find the indicated absolute values. Express your answers in simplest form.

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$|4 + 3i| = \sqrt{4^2 + 3^2} =$

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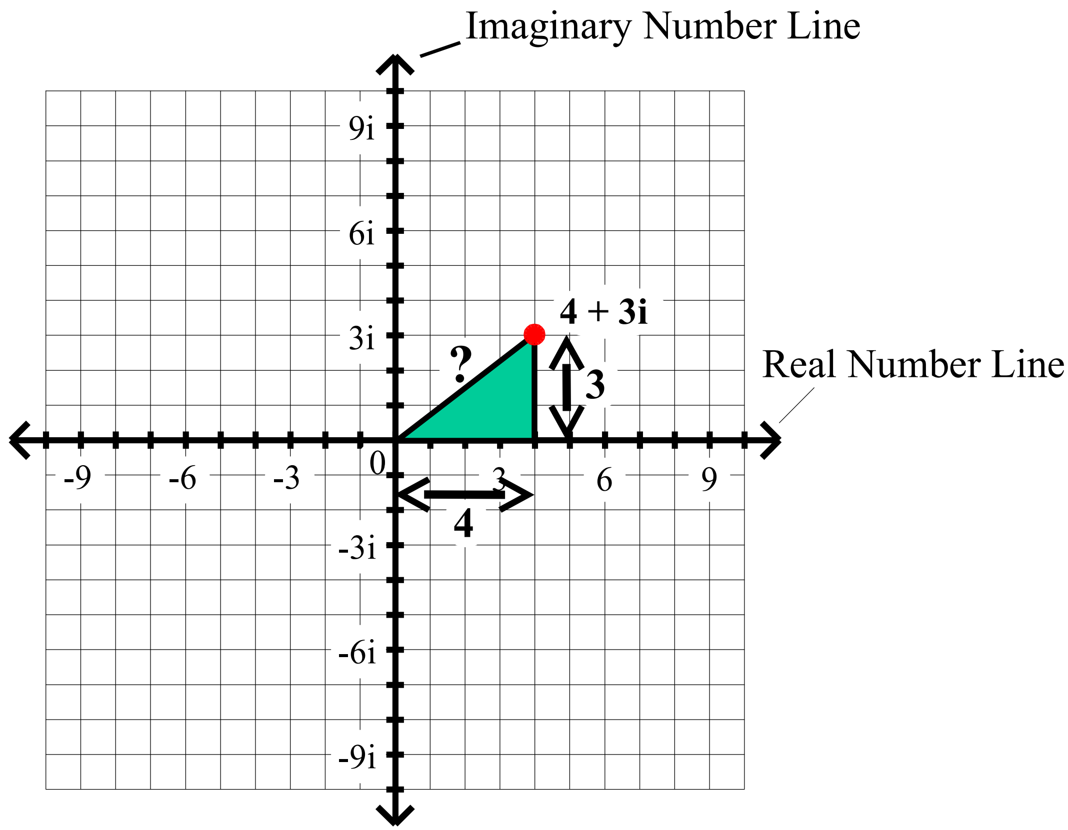
8. $|-2 + 3i| = \underline{\qquad\qquad}$

The Complex Number Plane



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Find the indicated absolute values. Express your answers in simplest form.

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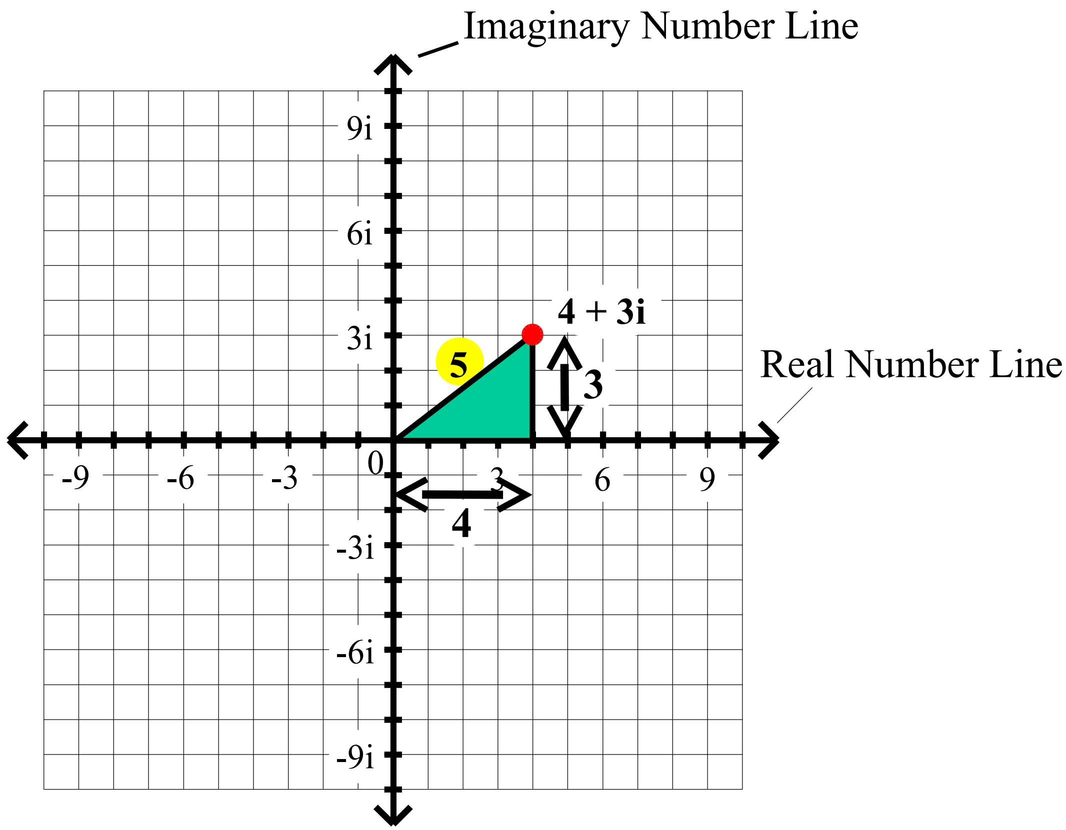
$|4 + 3i| = \sqrt{4^2 + 3^2} =$

$|4 + 3i| = \sqrt{16 + 9} = \sqrt{25}$

4 + 3i is 5 units from 0 !

8. $|-2 + 3i| =$ ________

The Complex Number Plane



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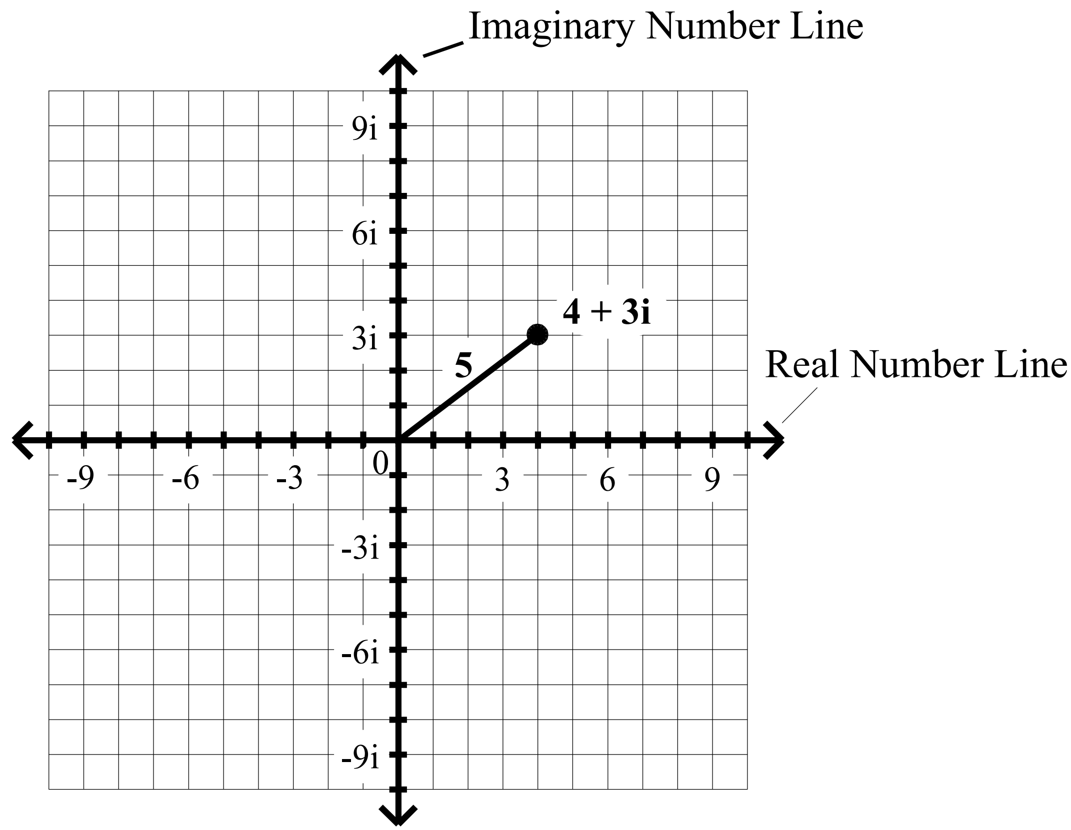

The Absolute Value of Complex Numbers

Algebra II Class Worksheet #4 Unit 5

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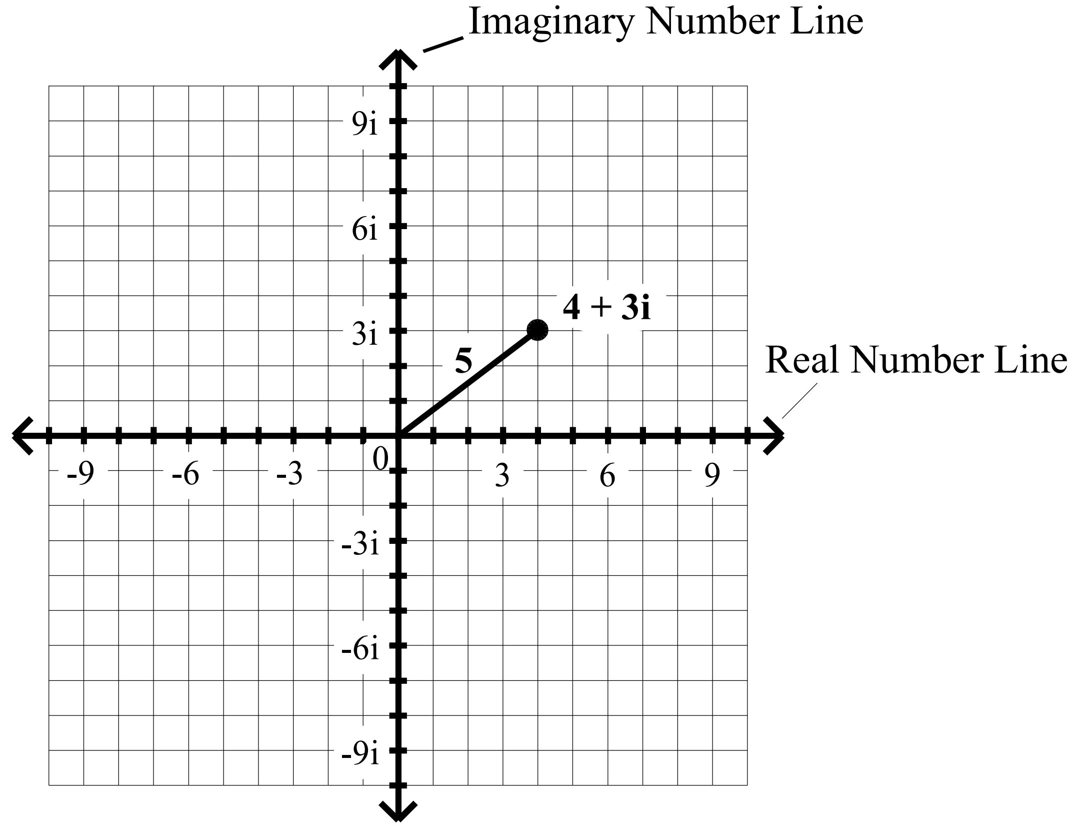
$|4 + 3i| = \sqrt{16 + 9} = \sqrt{25}$

4 + 3i is 5 units from 0 !

8. $|-2 + 3i| =$ ________

The Complex Number Plane



The Absolute Value of Complex Numbers

Notice that $|4 + 3i| =$

Algebra II Class Worksheet #4 Unit 5

Find the indicated absolute values. Express your answers in simplest form.

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4 + 3i is 5 units from 0 !

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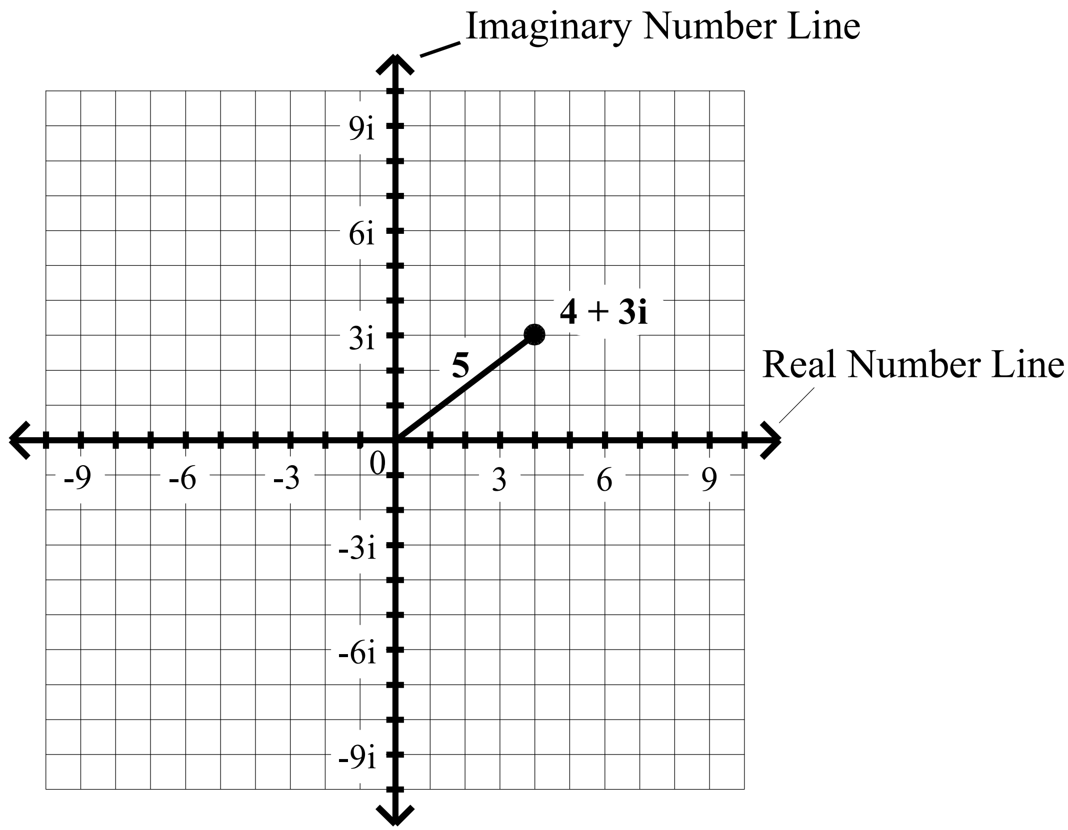

The Absolute Value of Complex Numbers

Notice that $|4+3i| = \sqrt{4^2+3^2}$.

Algebra II   Class Worksheet #4   Unit 5

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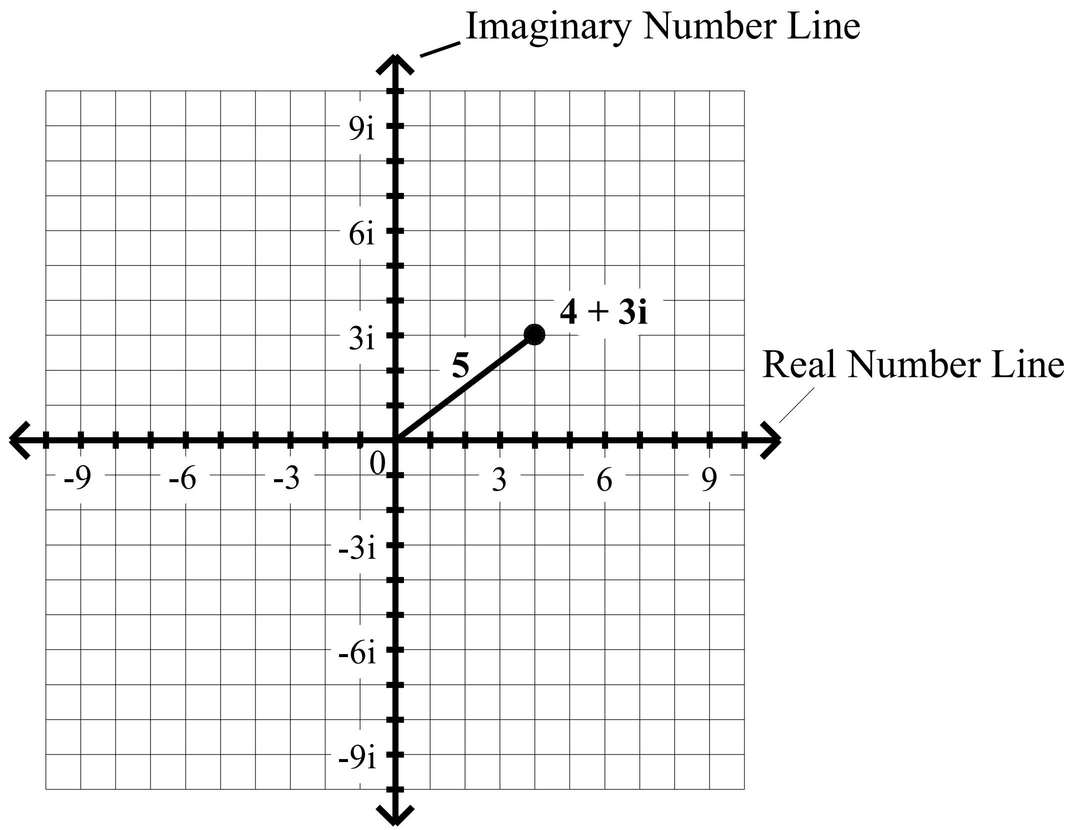

The Absolute Value of Complex Numbers

Notice that $|4 + 3i| = \sqrt{4^2 + 3^2}$. In general, $|a + bi| =$

Algebra II Class Worksheet #4 Unit 5

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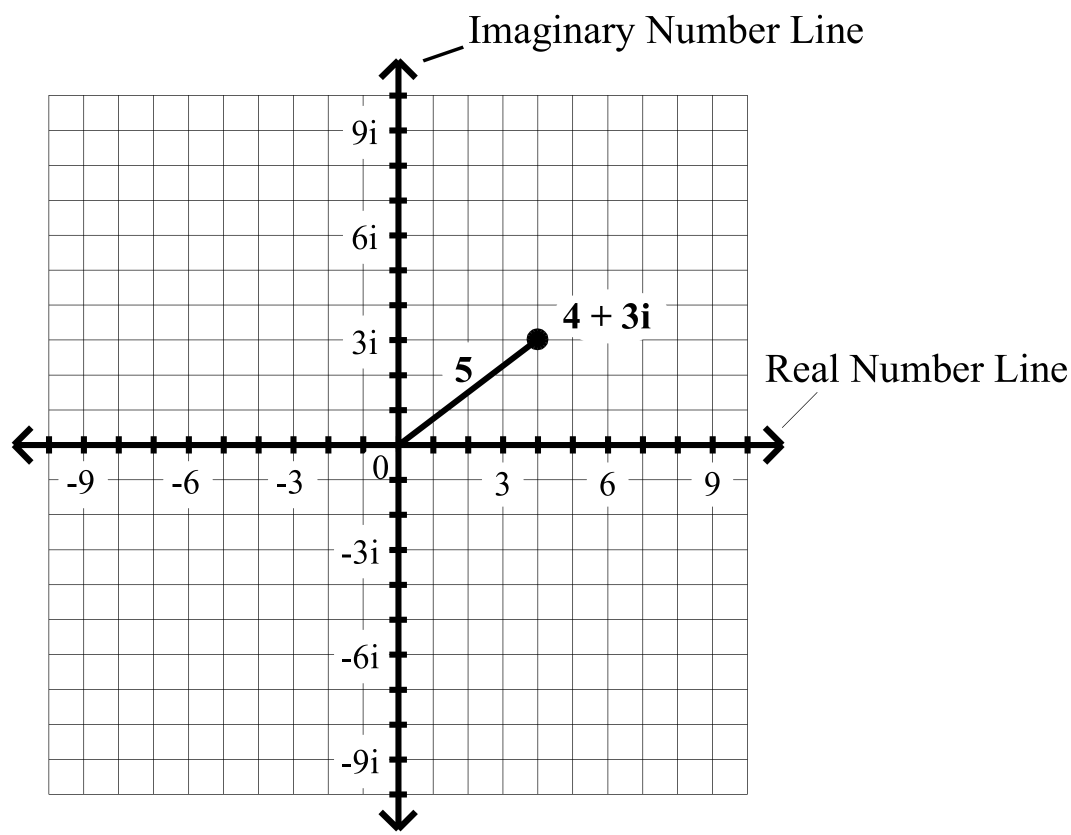

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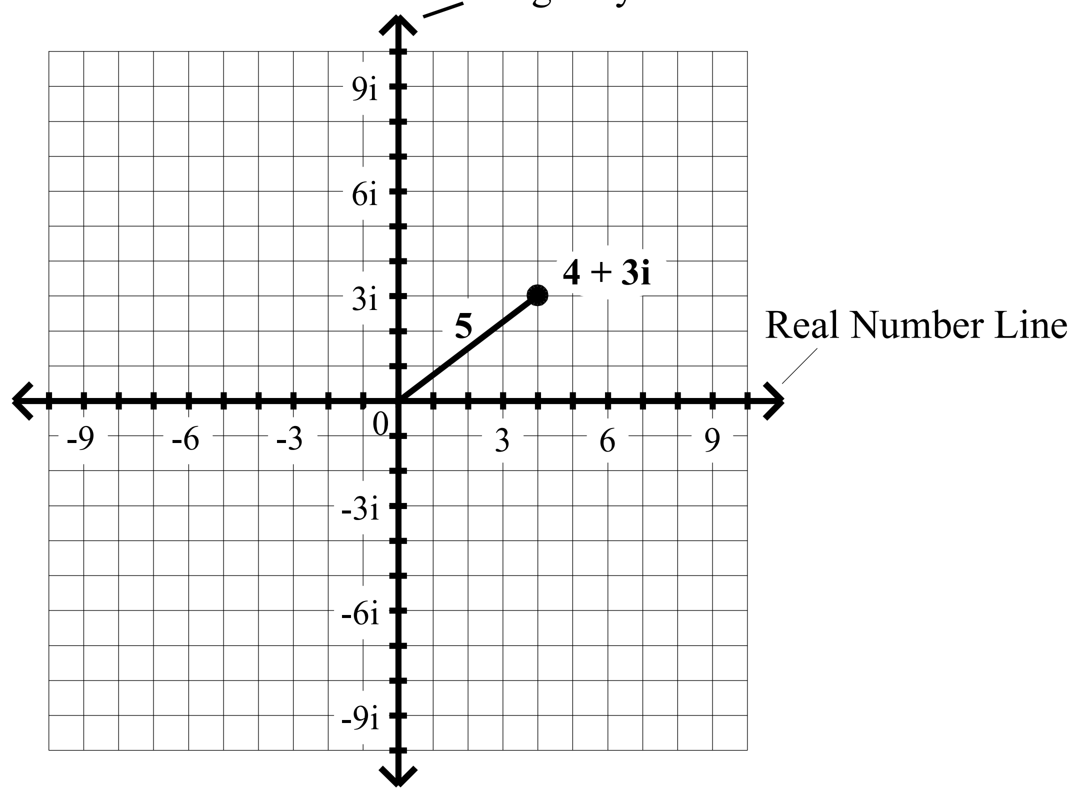

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$|a + bi| = \sqrt{a^2 + b^2}$

Notice that $|4 + 3i| = \sqrt{4^2 + 3^2}$. **In general,** $|a + bi| = \sqrt{a^2 + b^2}$.

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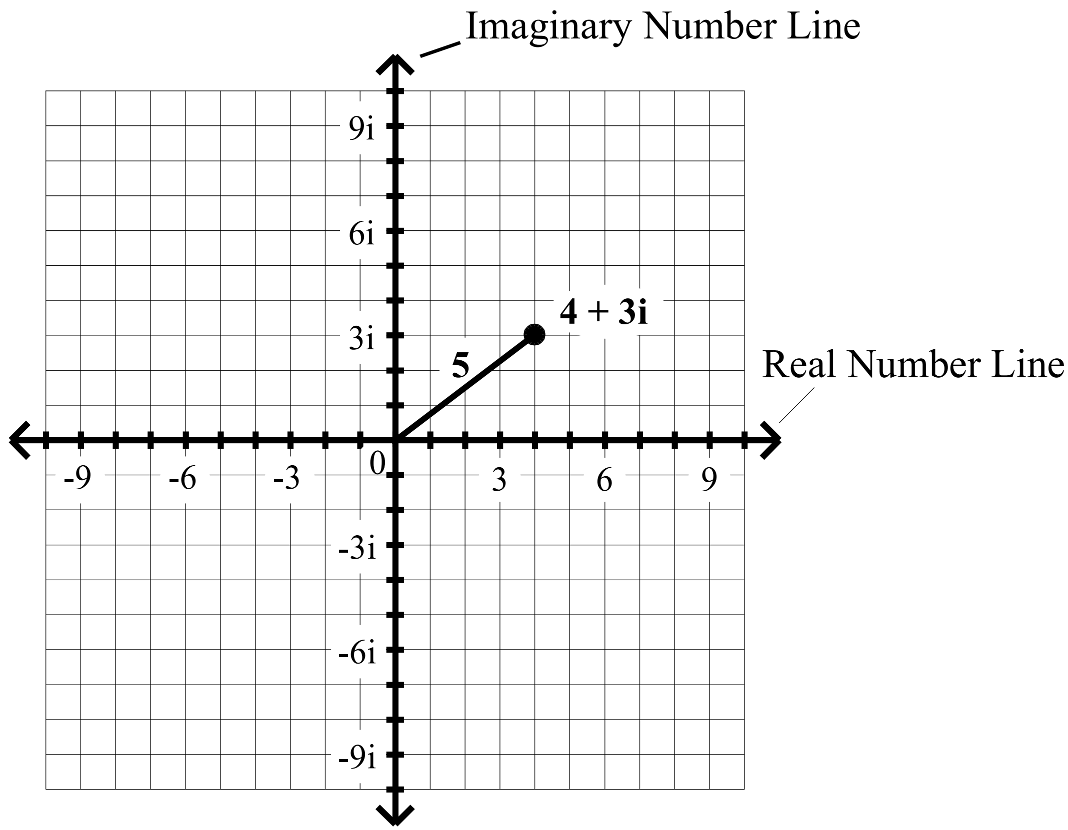

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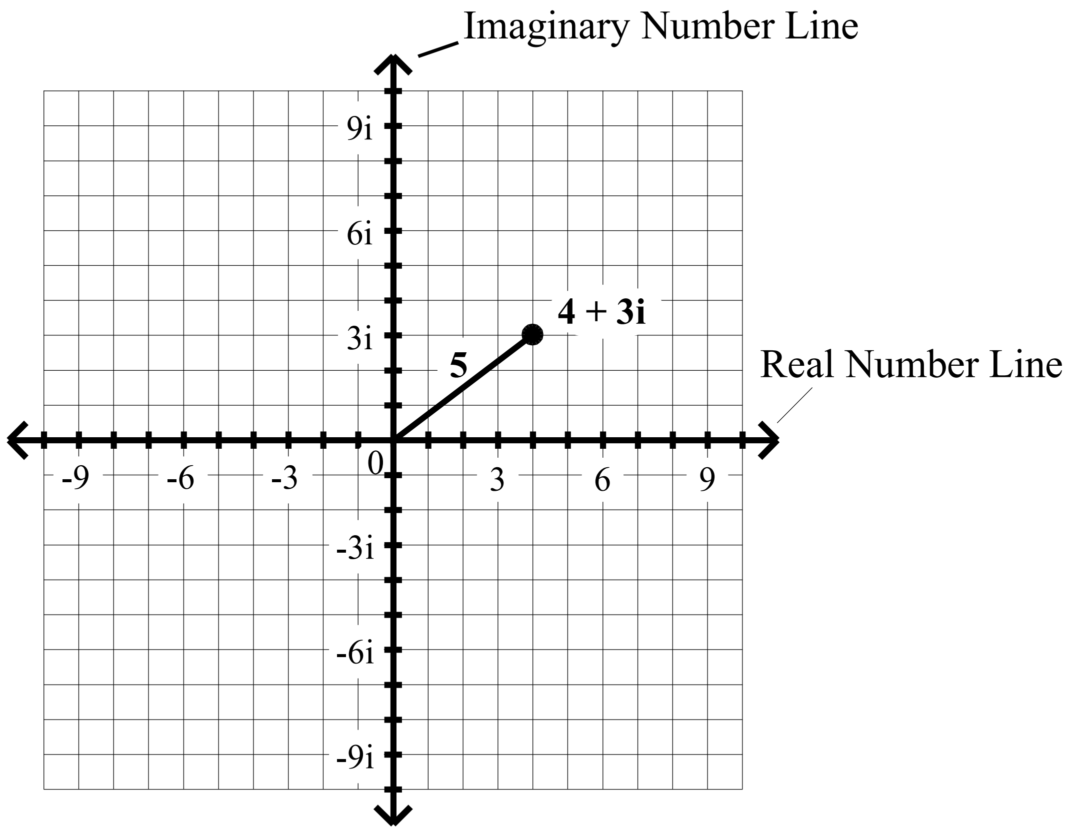

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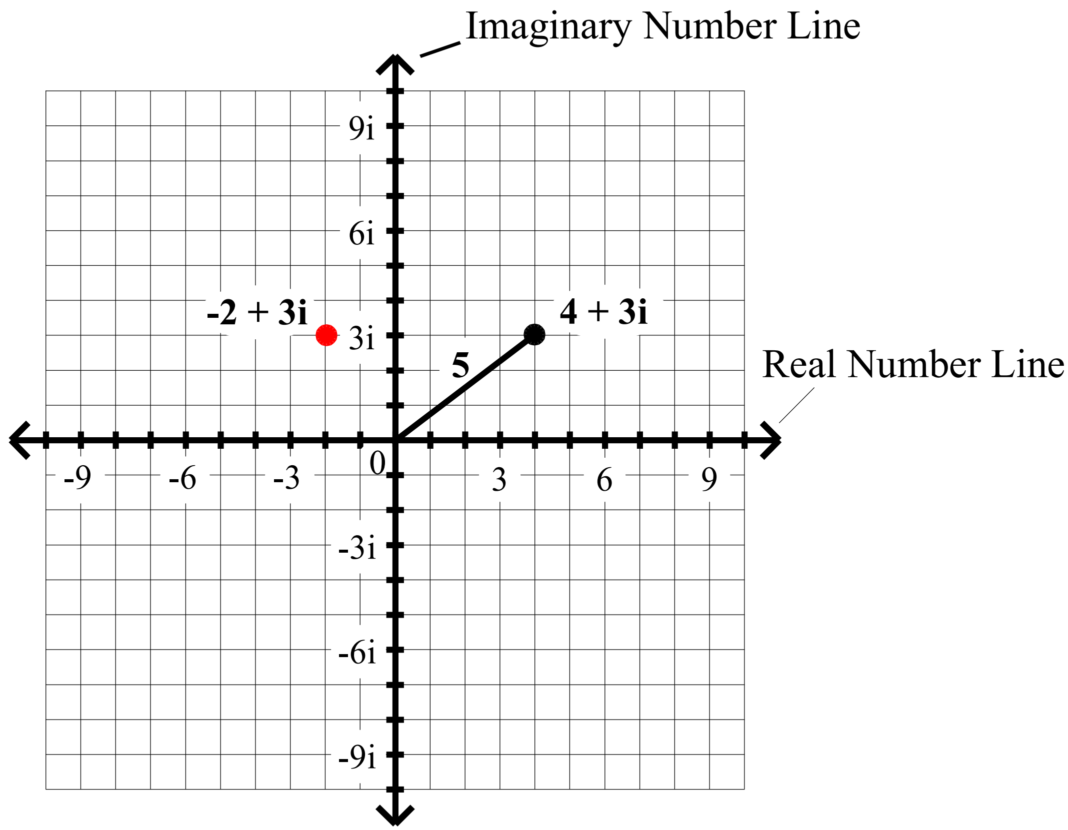

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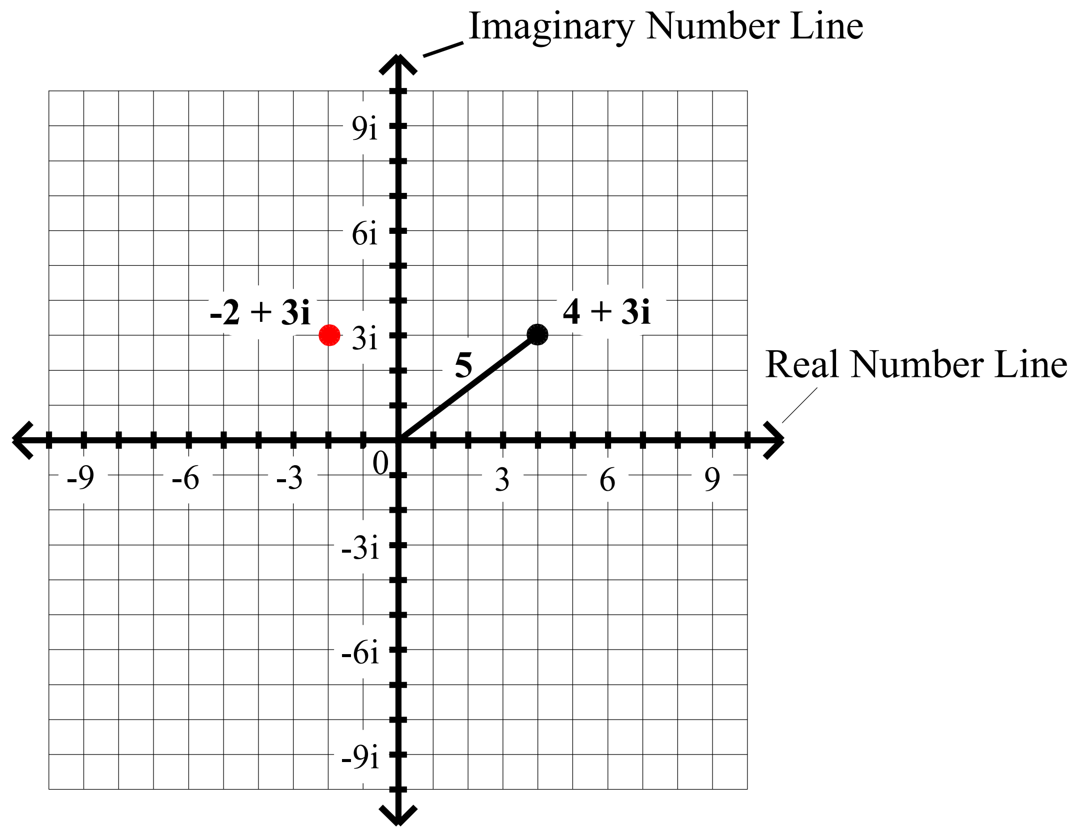

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The Absolute Value of Complex Numbers

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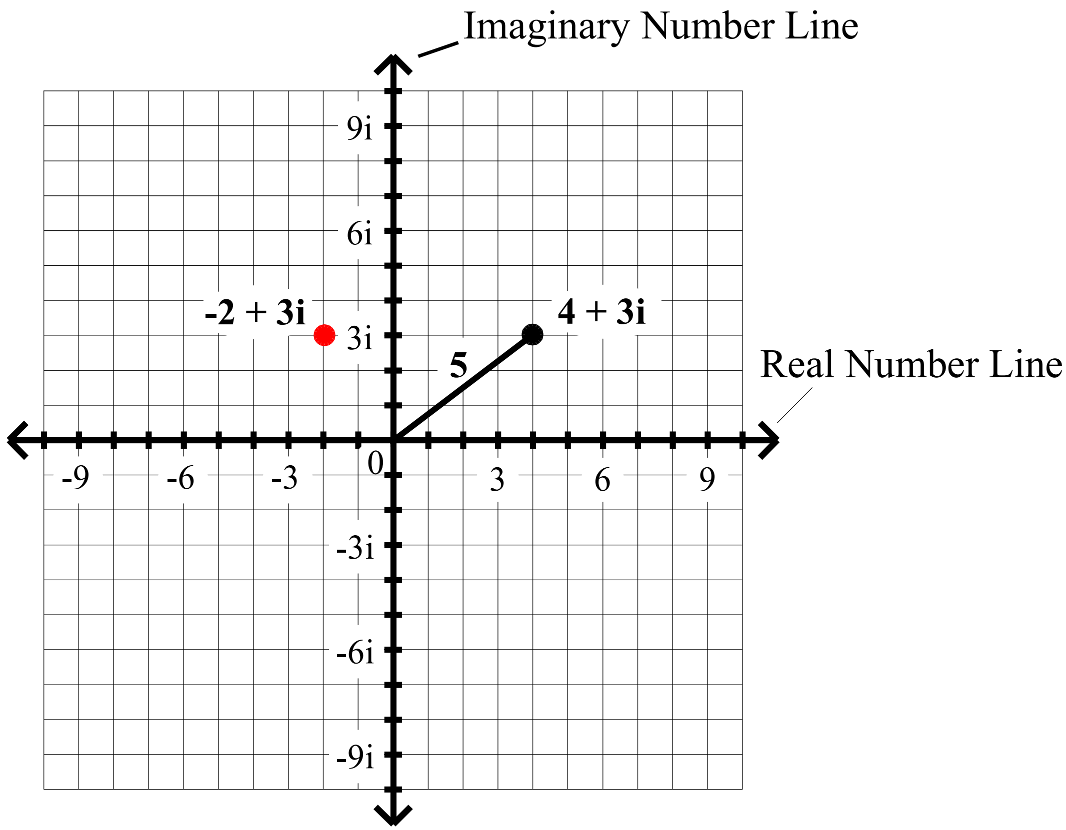

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$|-2 + 3i| = \sqrt{}$

The Absolute Value of Complex Numbers

$$|a + bi| = \sqrt{a^2 + b^2}$$

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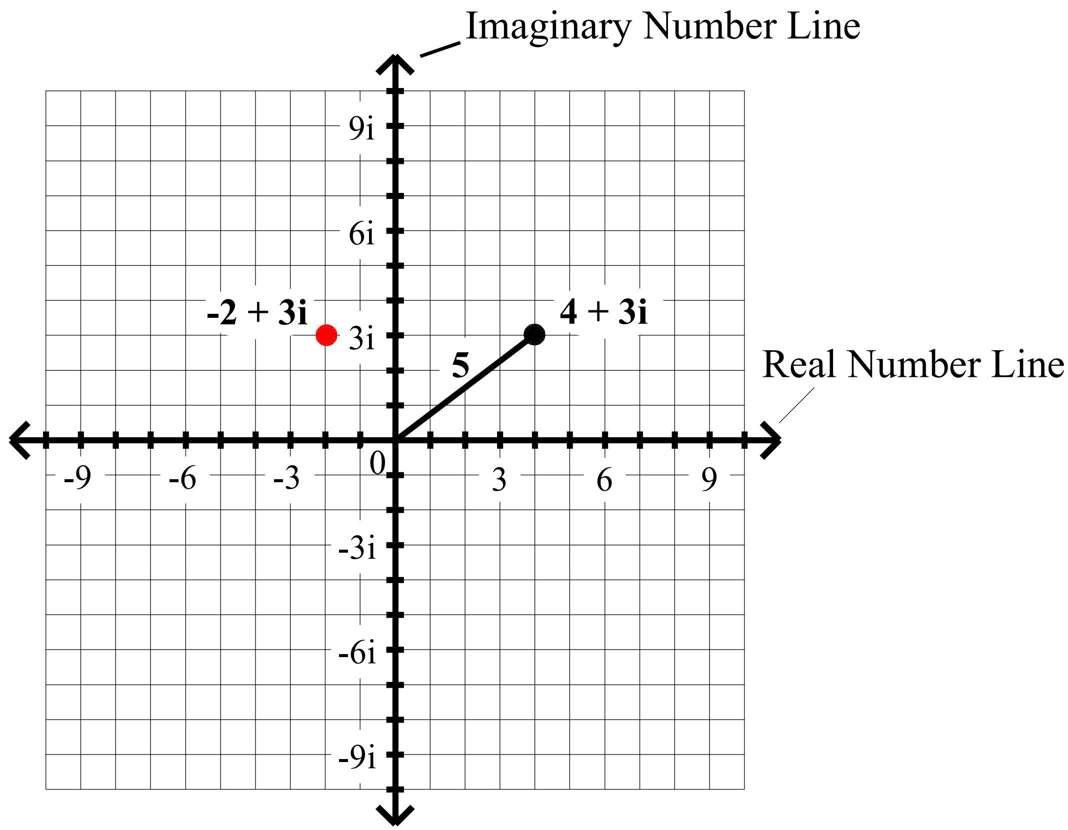

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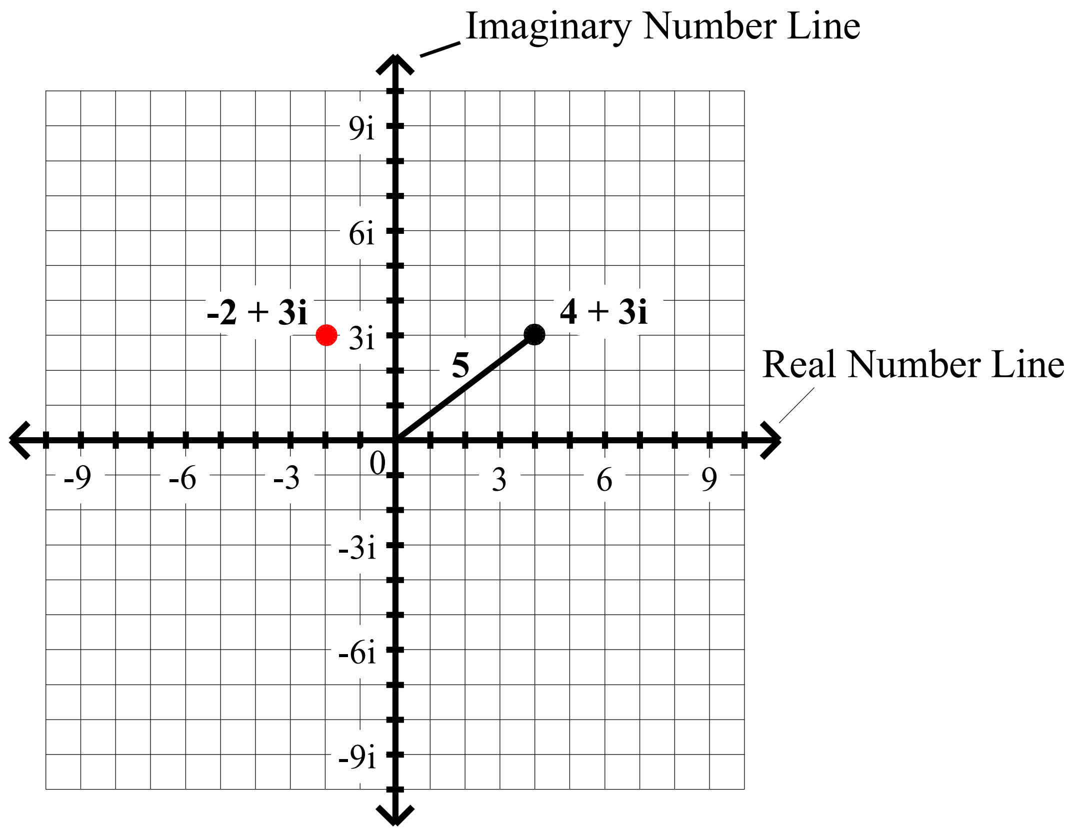
8. $|-2 + 3i| =$ ________

$$|a + bi| = \sqrt{a^2 + b^2}$$

$$|-2 + 3i| = \sqrt{(-2)^2}$$

The Complex Number Plane



The Absolute Value of Complex Numbers

$$|a + bi| = \sqrt{a^2 + b^2}$$

Algebra II Class Worksheet #4 Unit 5

Find the indicated absolute values. Express your answers in simplest form.

7. $|4 + 3i| = \underline{\quad 5 \quad}$

$|4 + 3i| = \sqrt{4^2 + 3^2} =$

$|4 + 3i| = \sqrt{16 + 9} = \sqrt{25}$

4 + 3i is 5 units from 0 !

8. $|-2 + 3i| = \underline{\qquad\qquad}$

$|a + bi| = \sqrt{a^2 + b^2}$

$|-2 + 3i| = \sqrt{(-2)^2 + \quad}$

The Absolute Value of Complex Numbers

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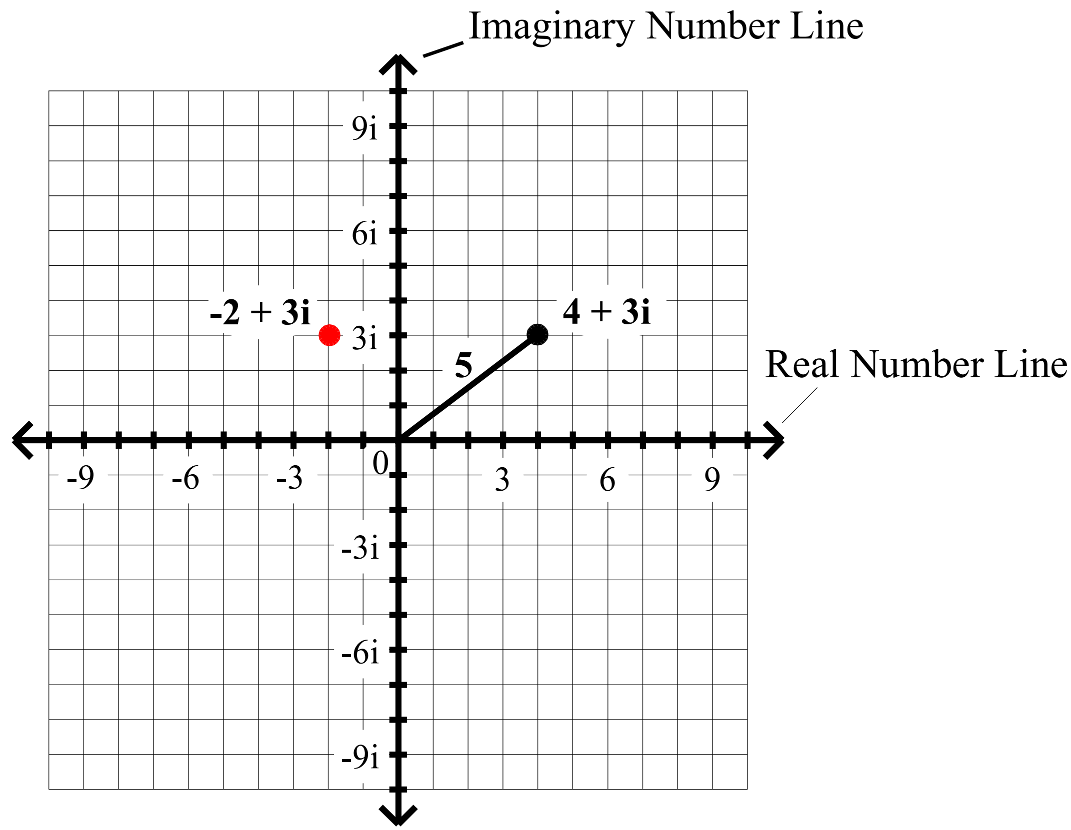
The Complex Number Plane



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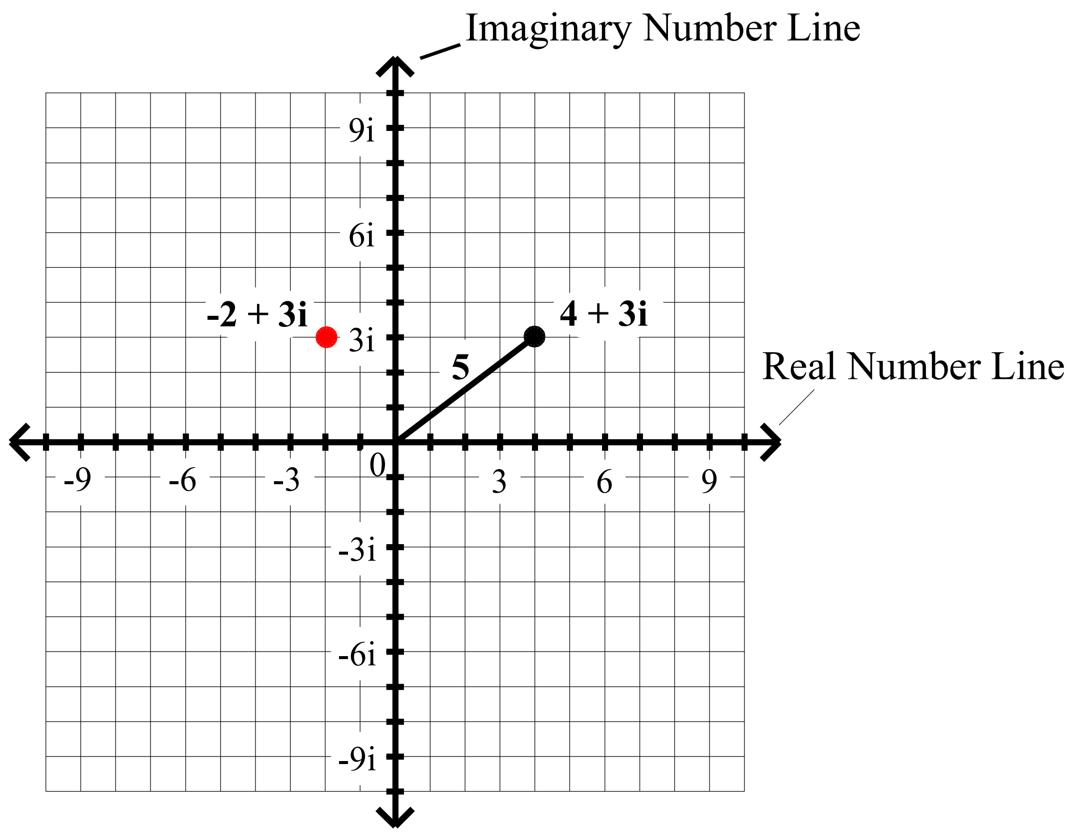
The Complex Number Plane



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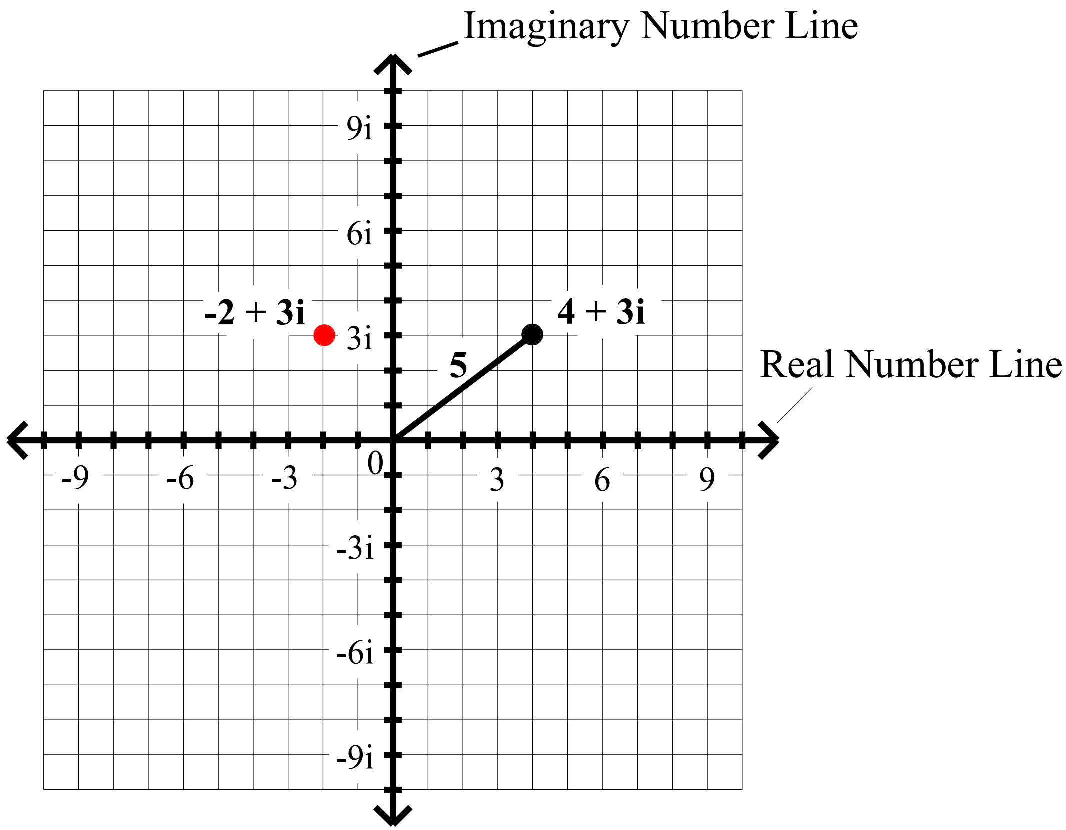

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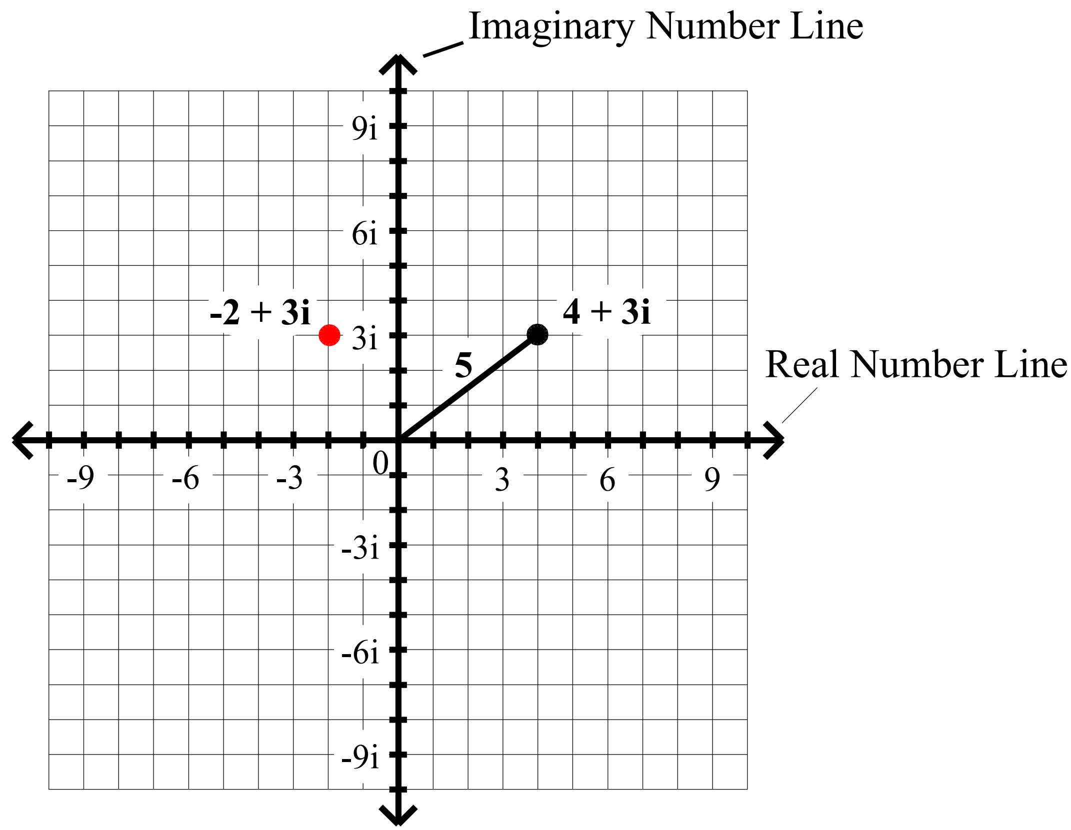

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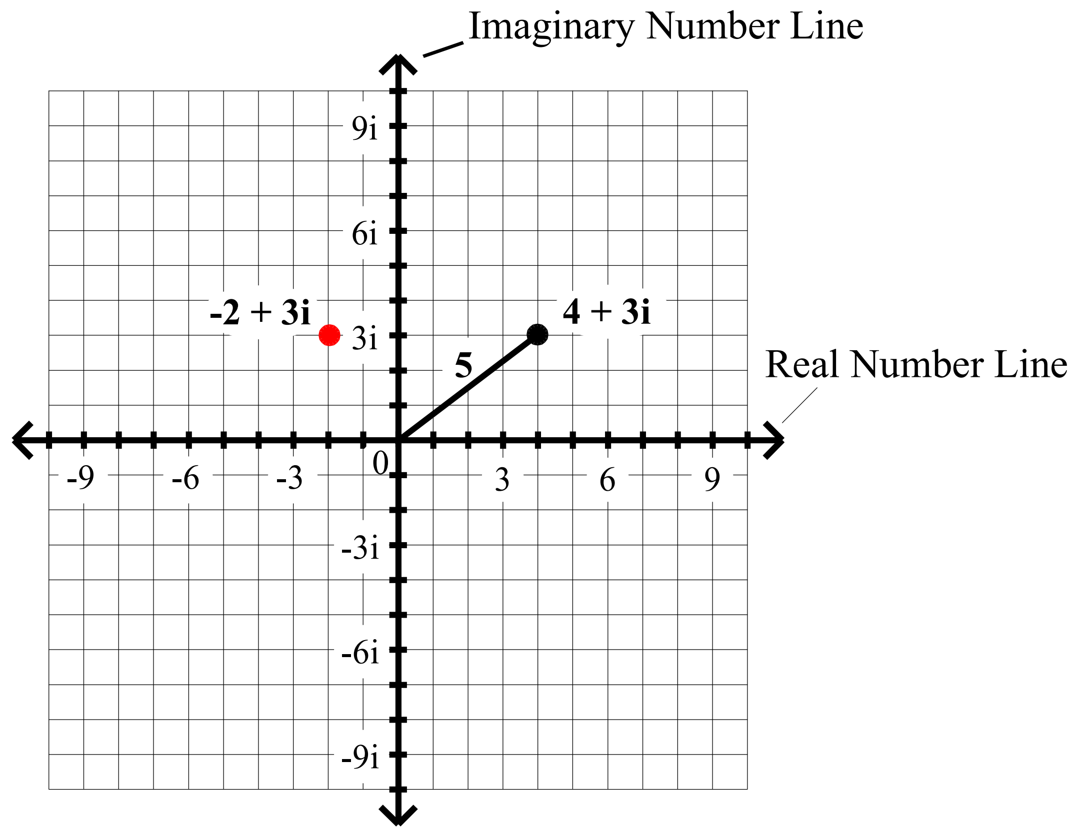
The Complex Number Plane



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The Absolute Value of Complex Numbers

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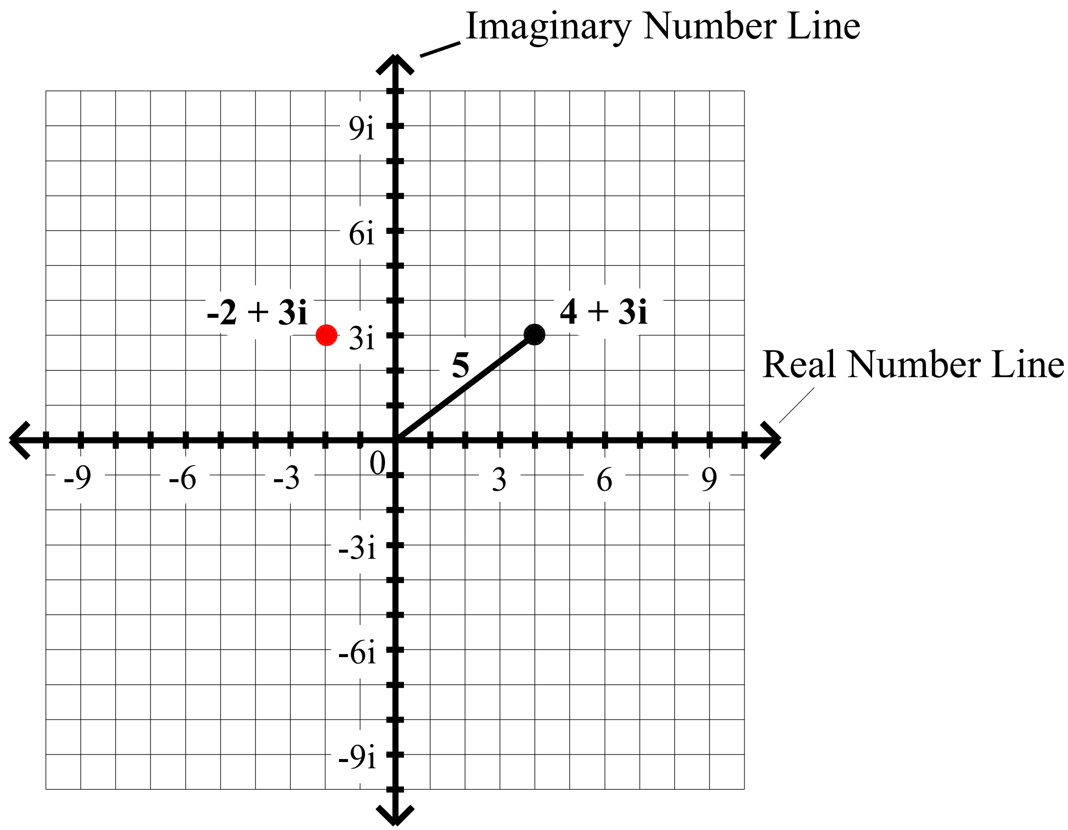

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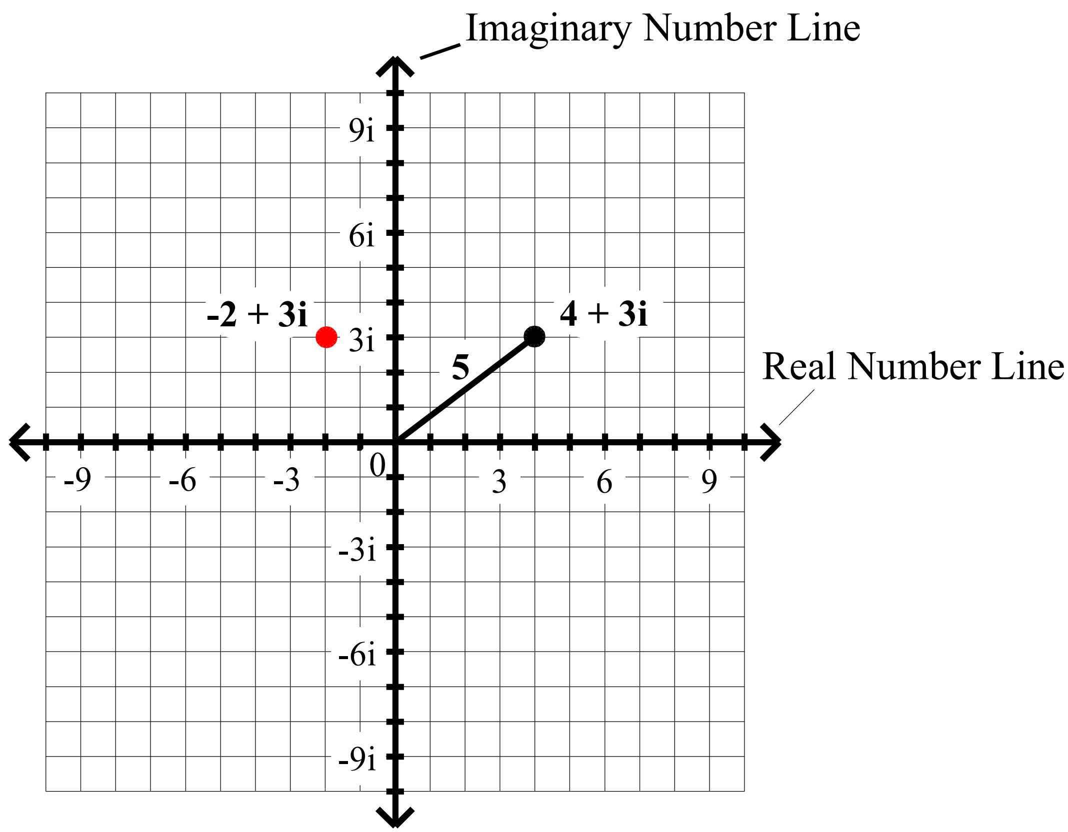

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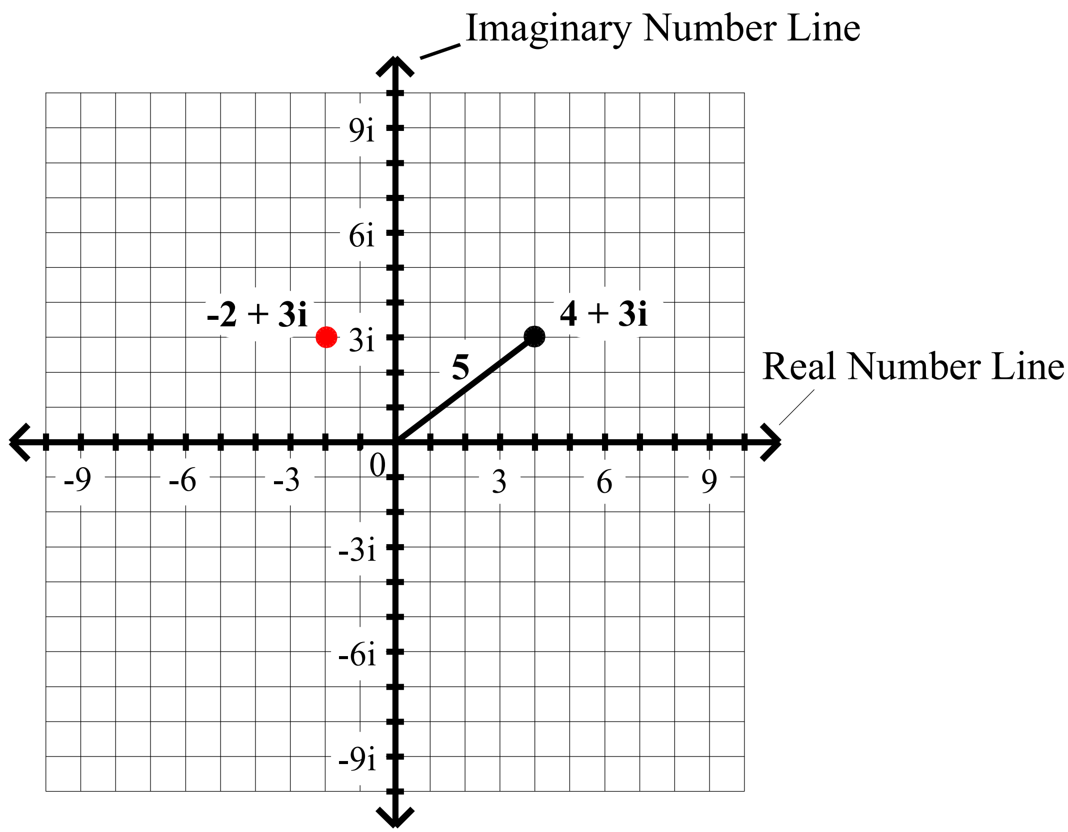

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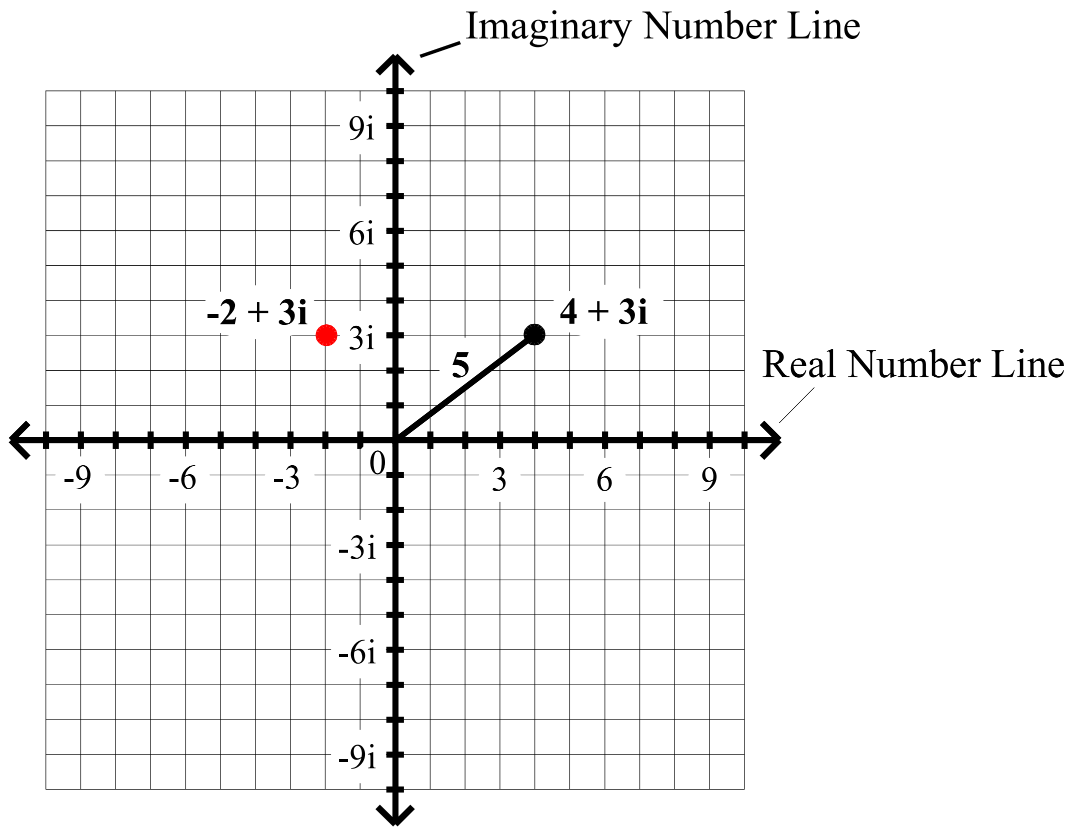

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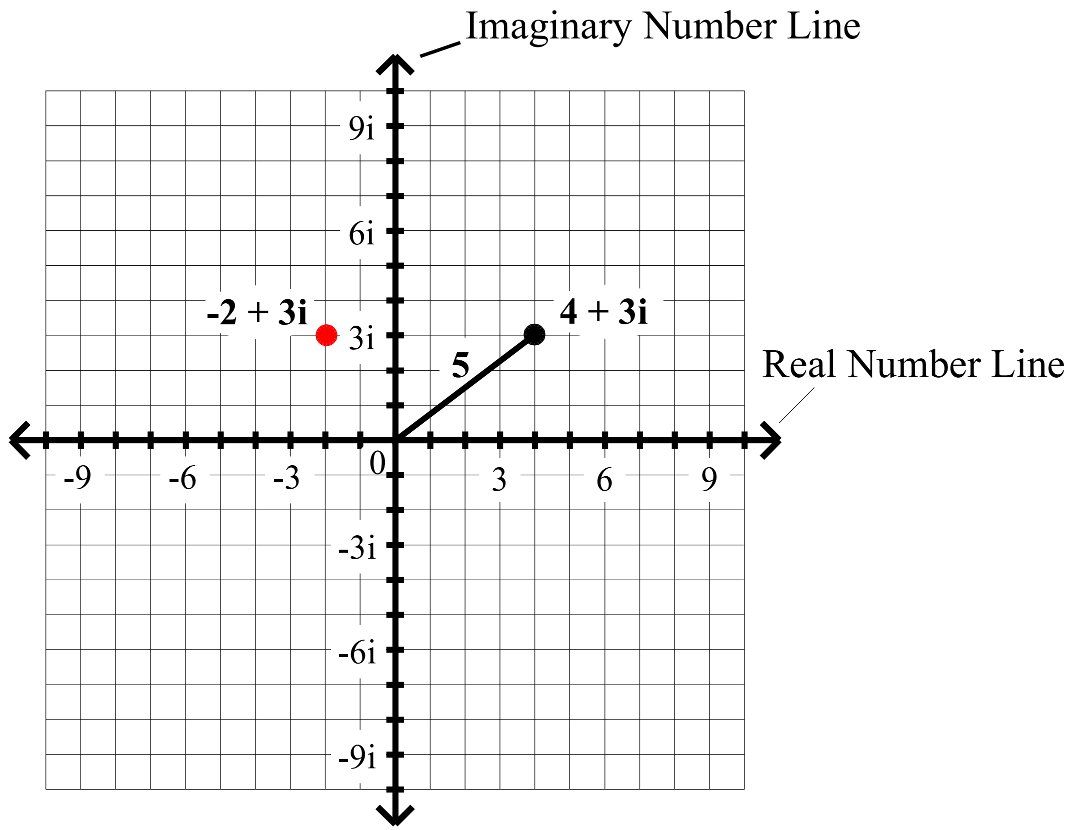

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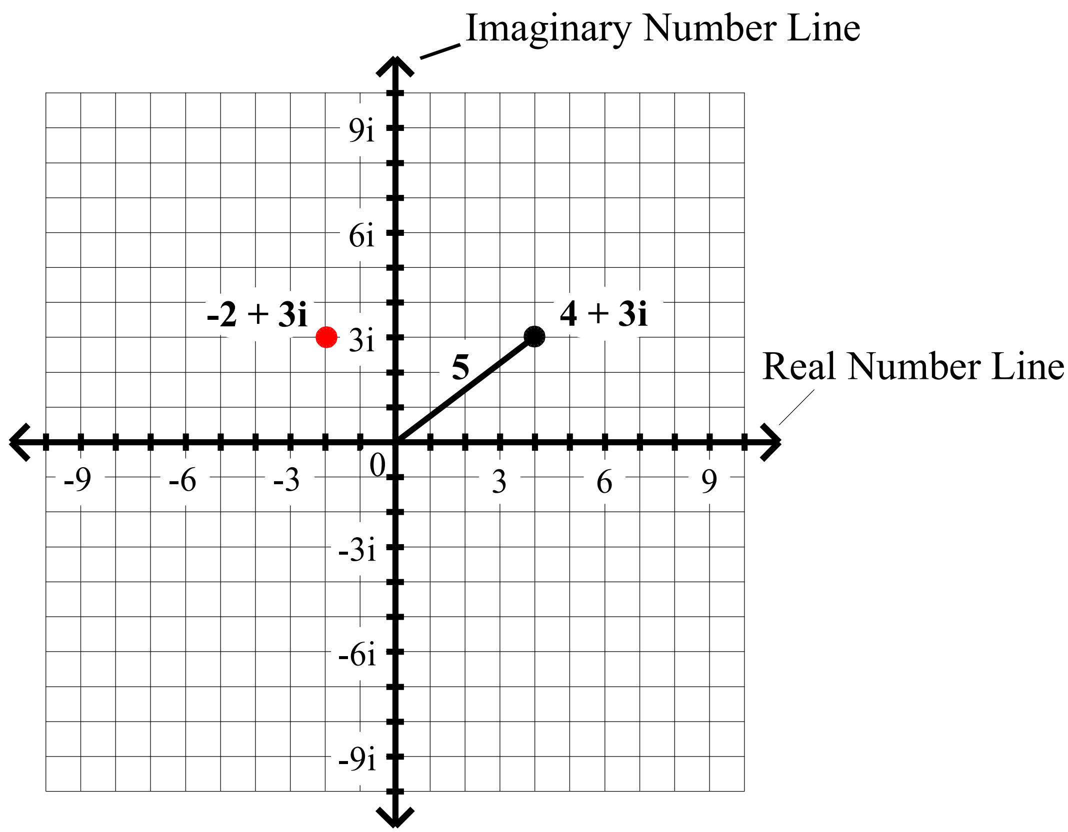

The Absolute Value of Complex Numbers

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The distance from -2 + 3i to zero

Algebra II Class Worksheet #4 Unit 5

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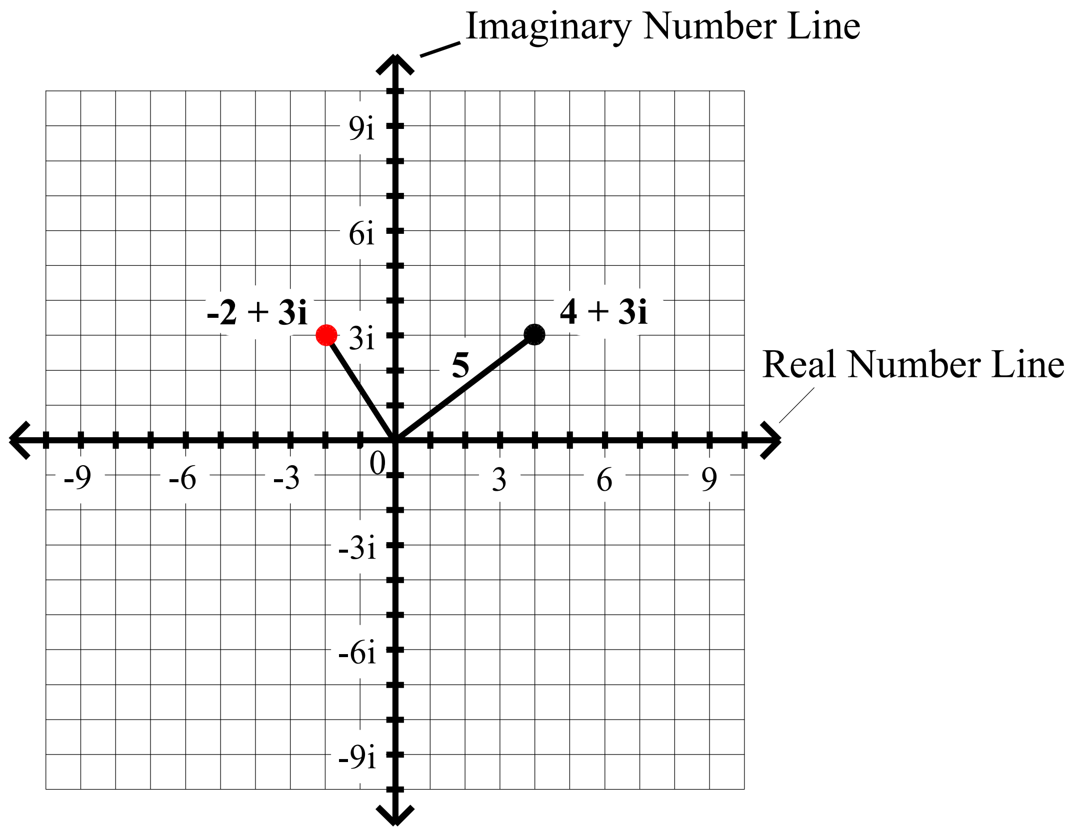

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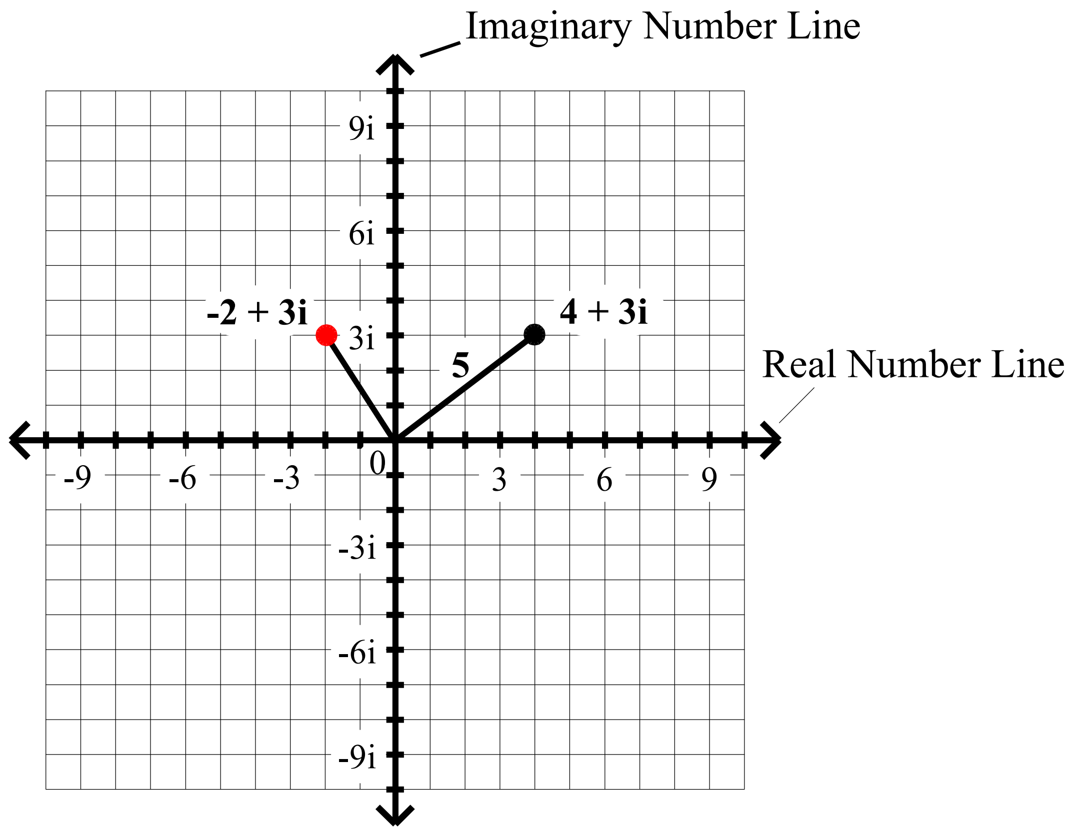

The Absolute Value of Complex Numbers

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The distance from -2 + 3i to zero is $\sqrt{13}$

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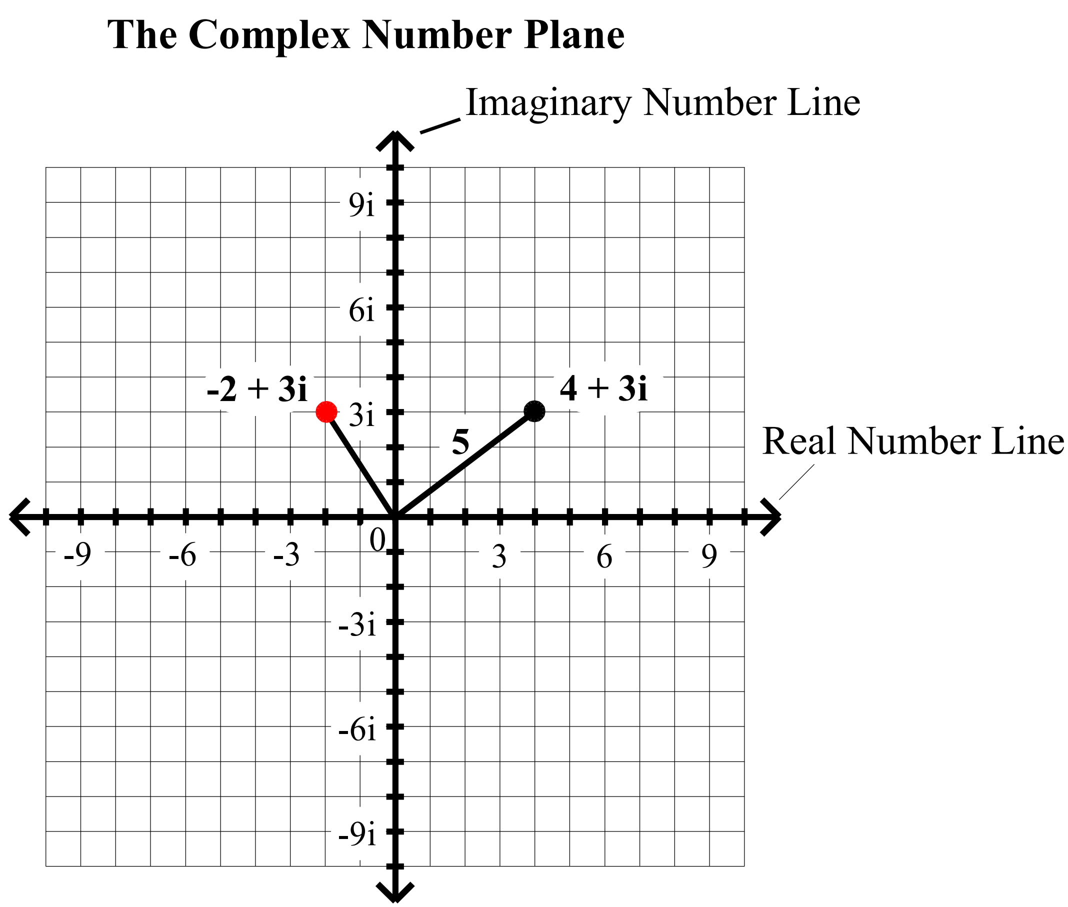

The Absolute Value of Complex Numbers

$$|a+bi| = \sqrt{a^2+b^2}$$

The distance from -2 + 3i to zero is $\sqrt{13} \approx 3.6$ units.

Algebra II Class Worksheet #4 Unit 5

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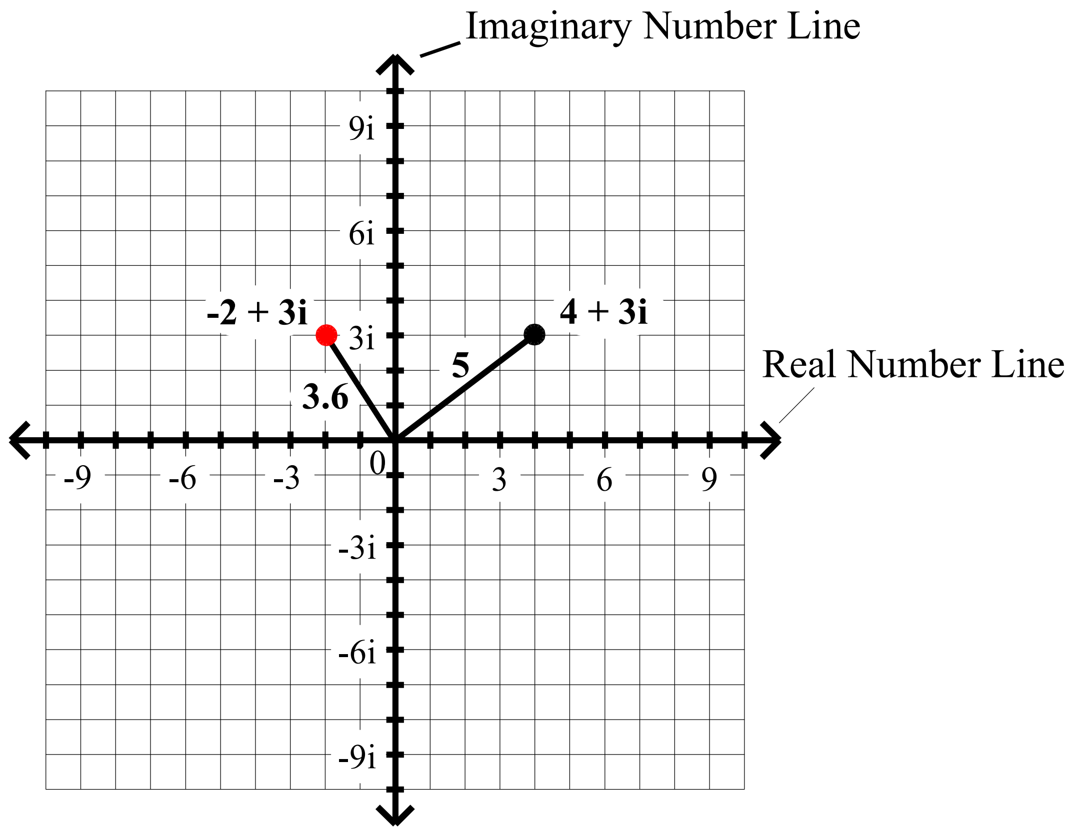

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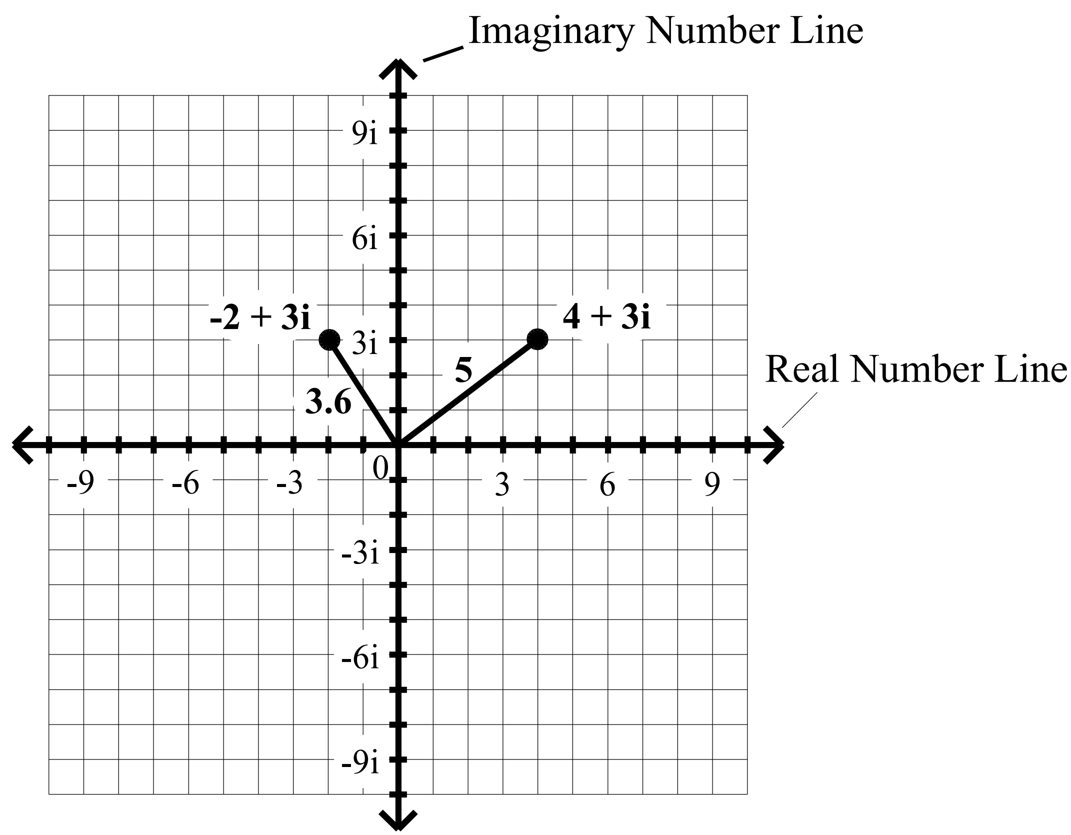

Algebra II Class Worksheet #4 Unit 5

Find the indicated absolute values. Express your answers in simplest form.

9. $|\,3 - 6i\,| =$ ________

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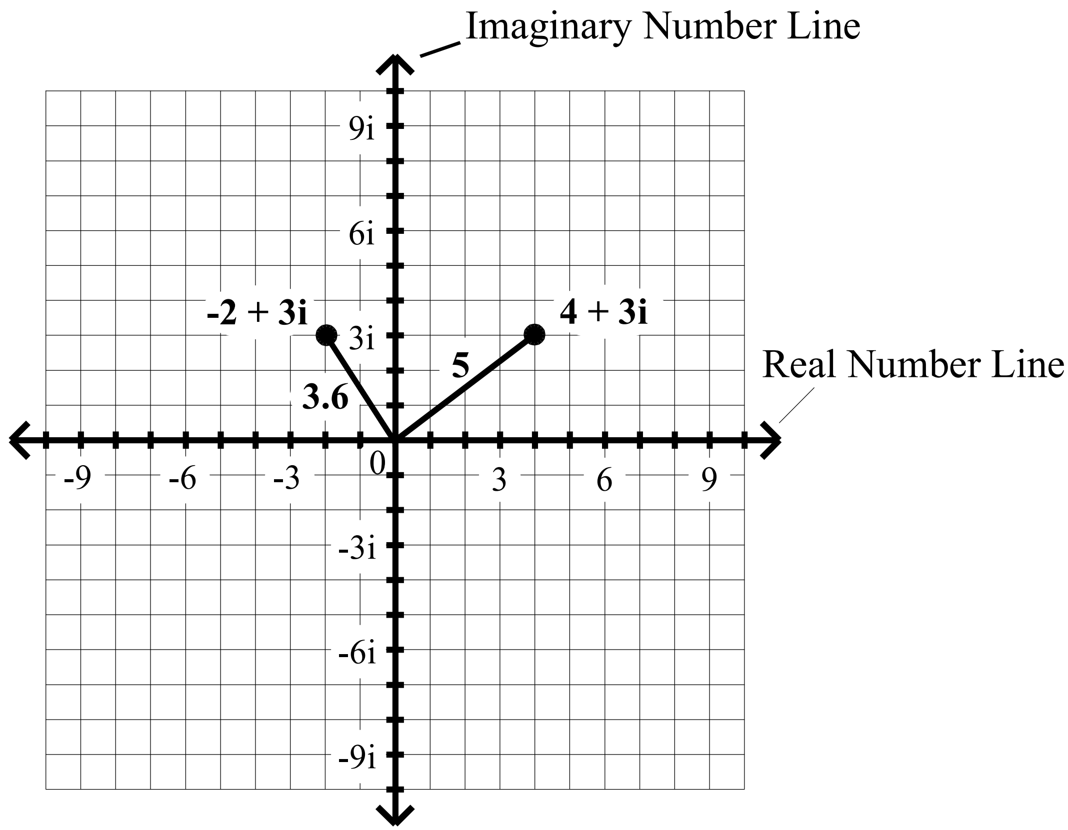

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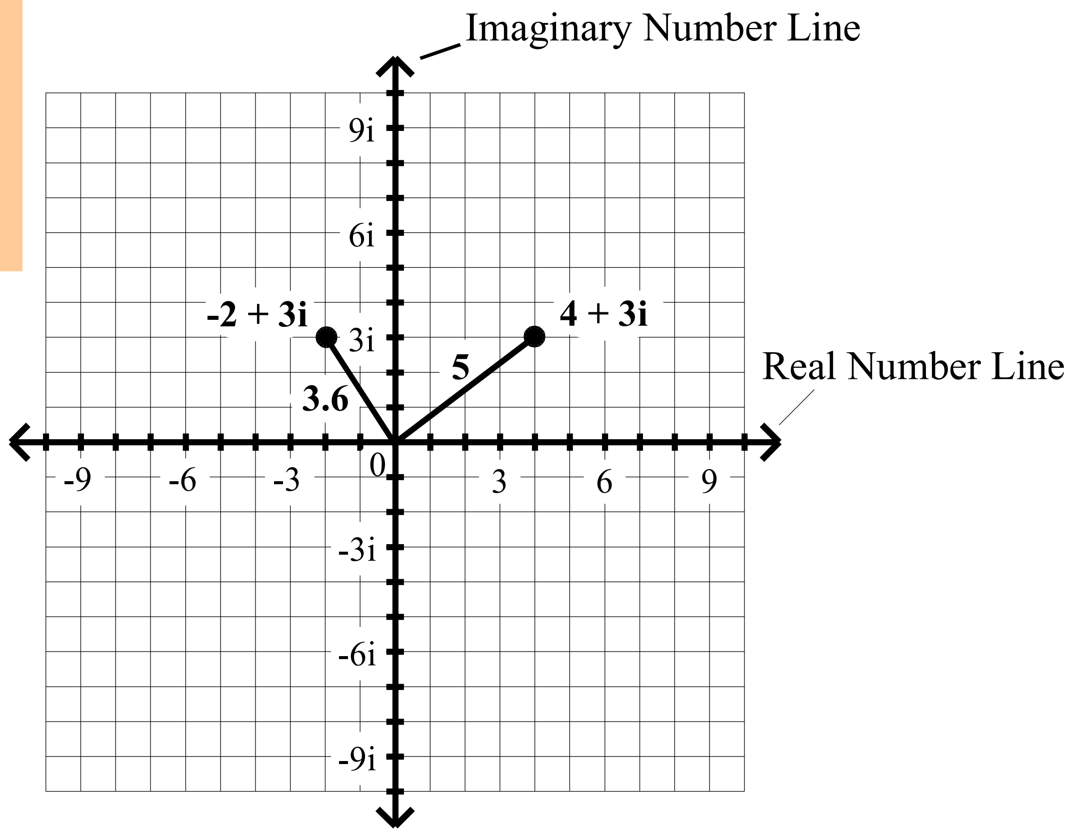

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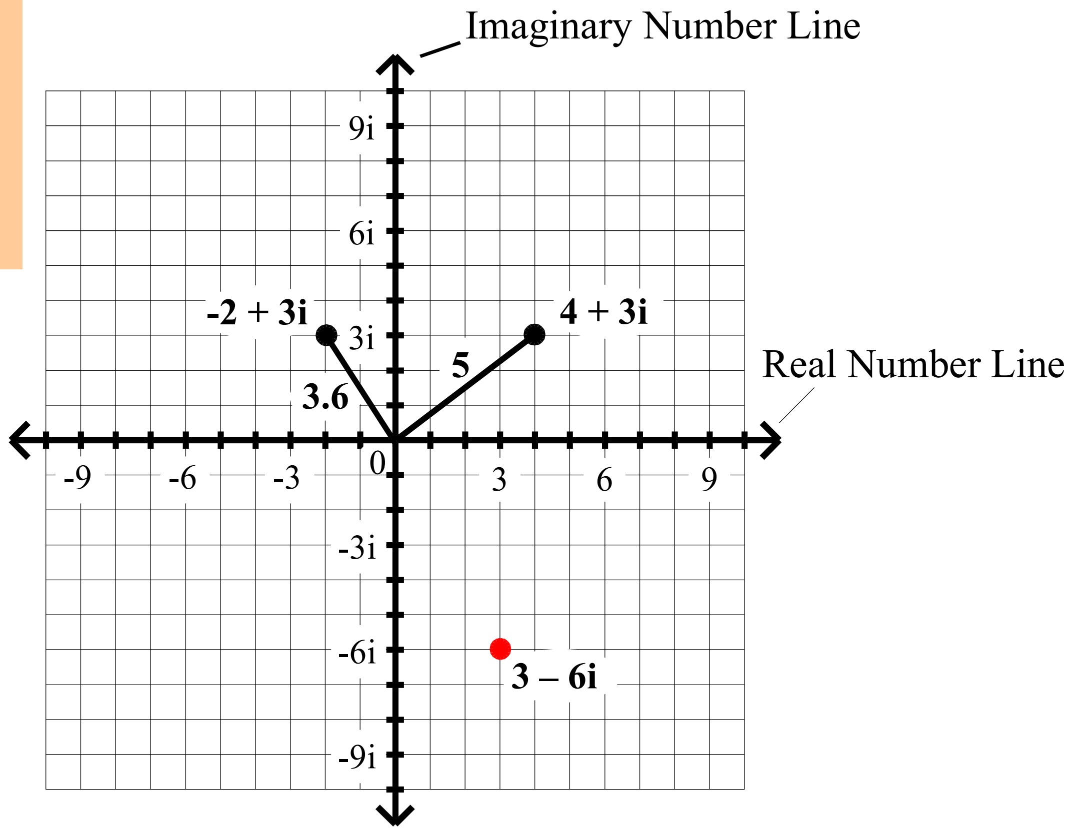

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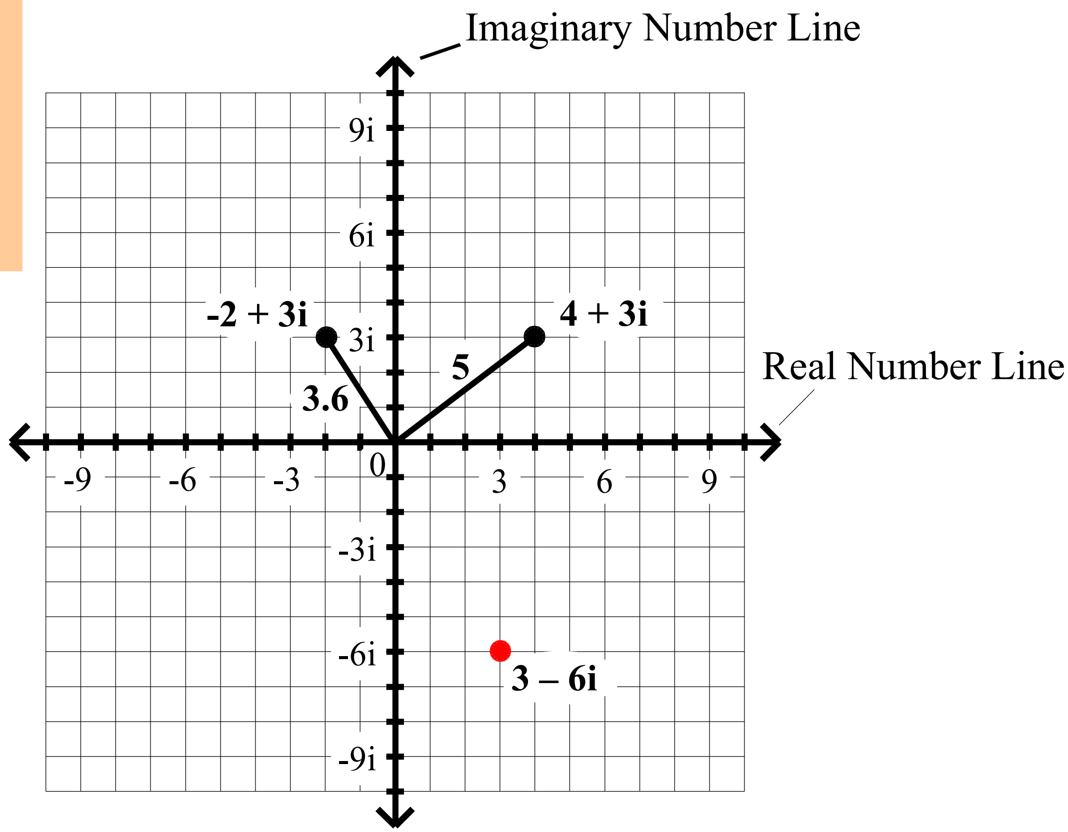

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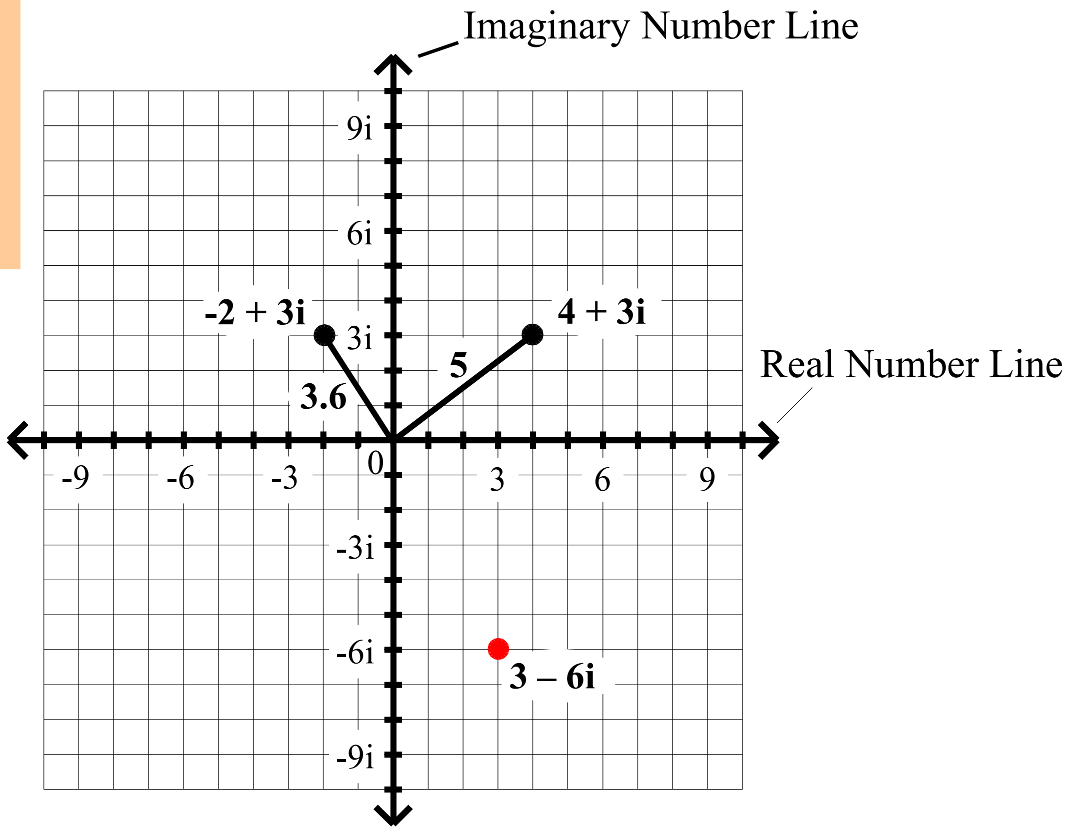

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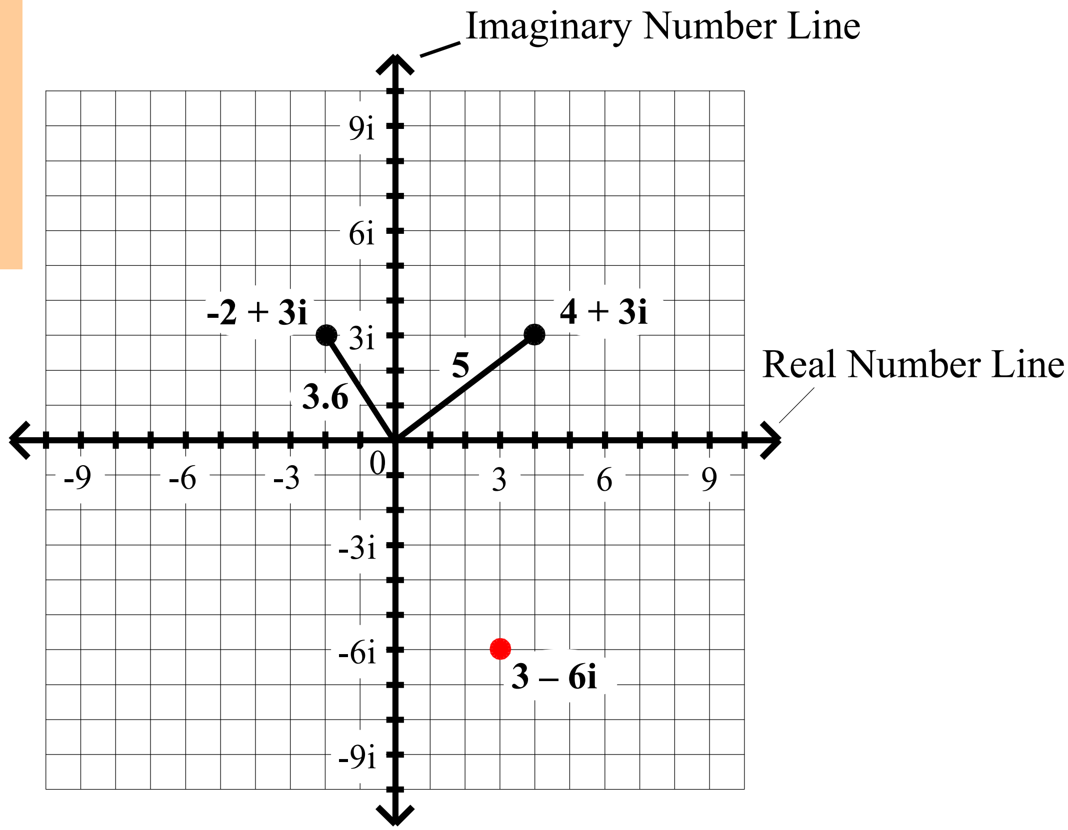

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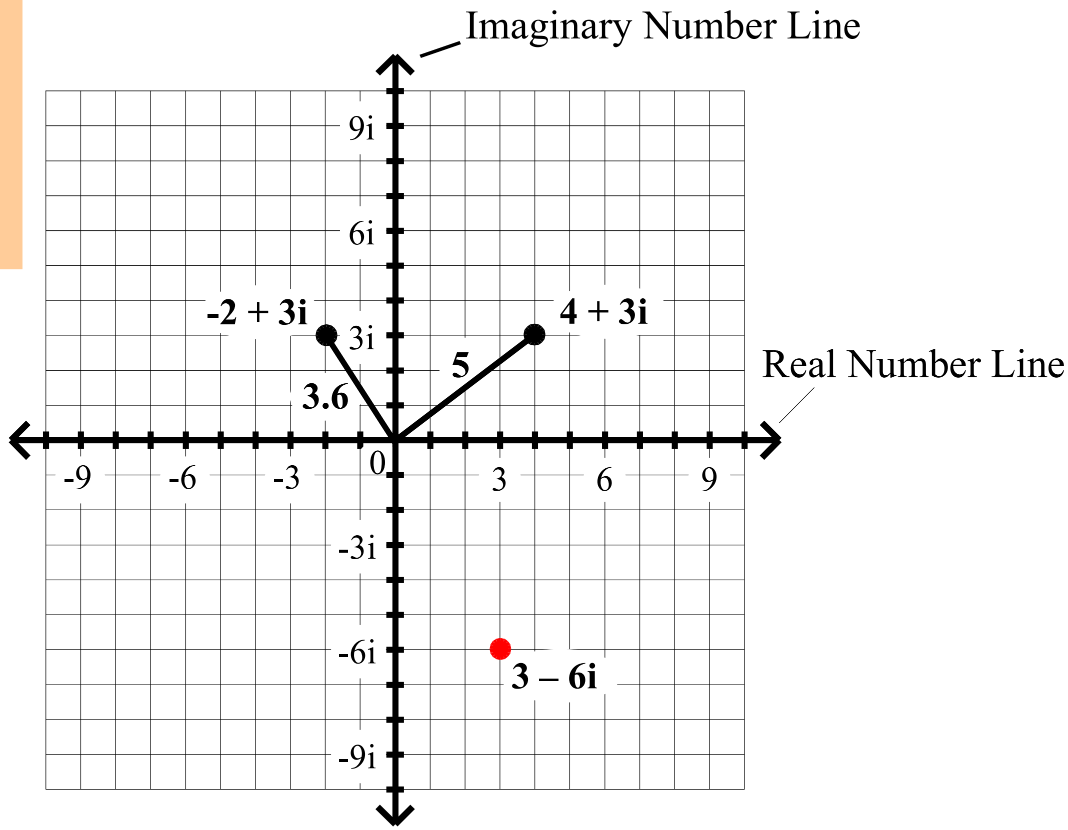

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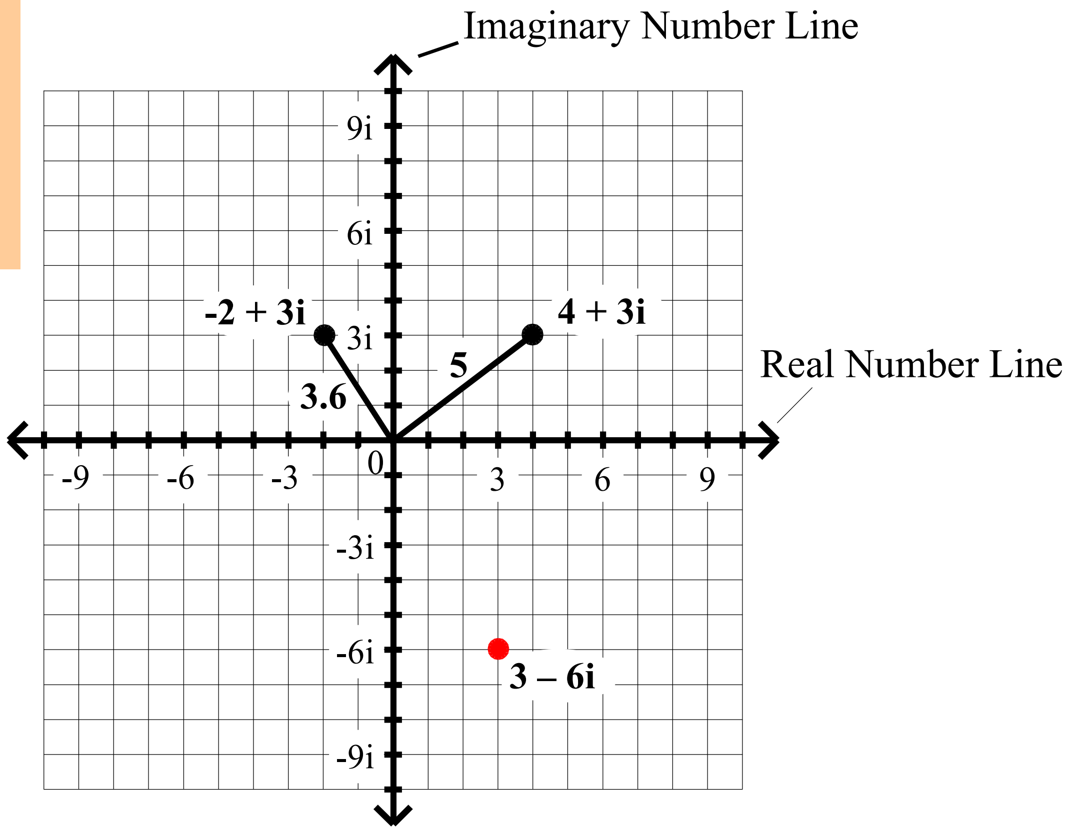

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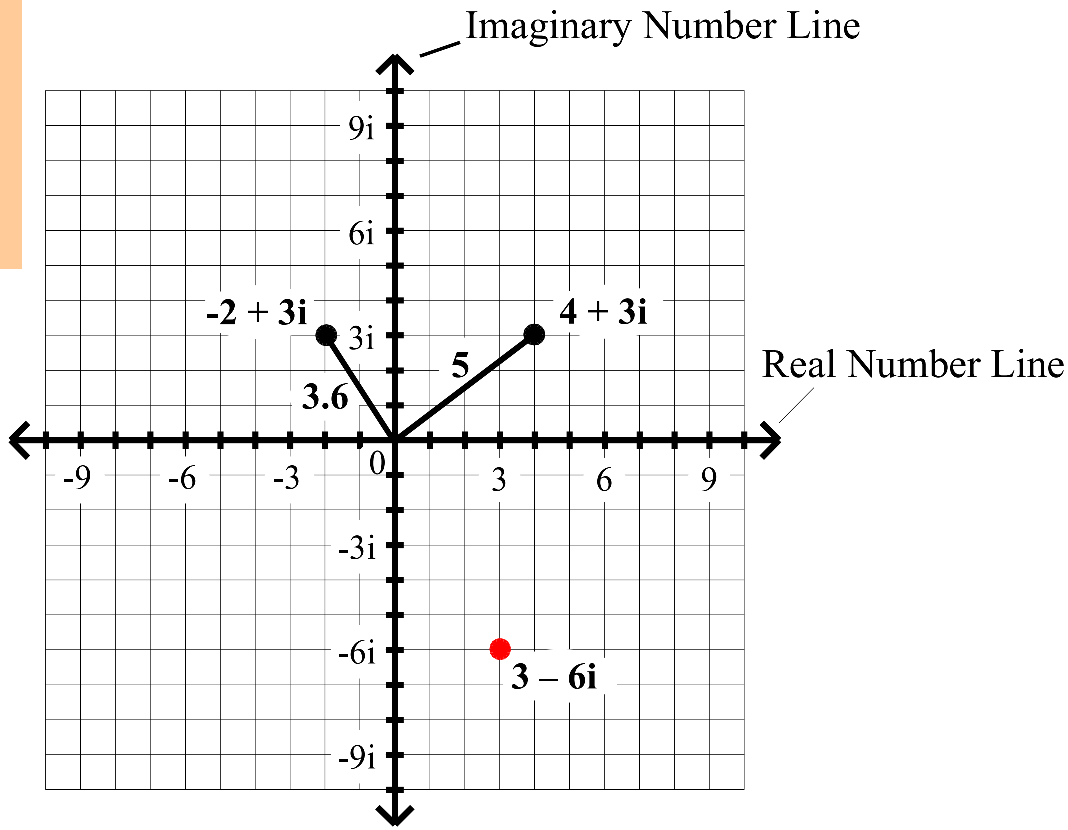

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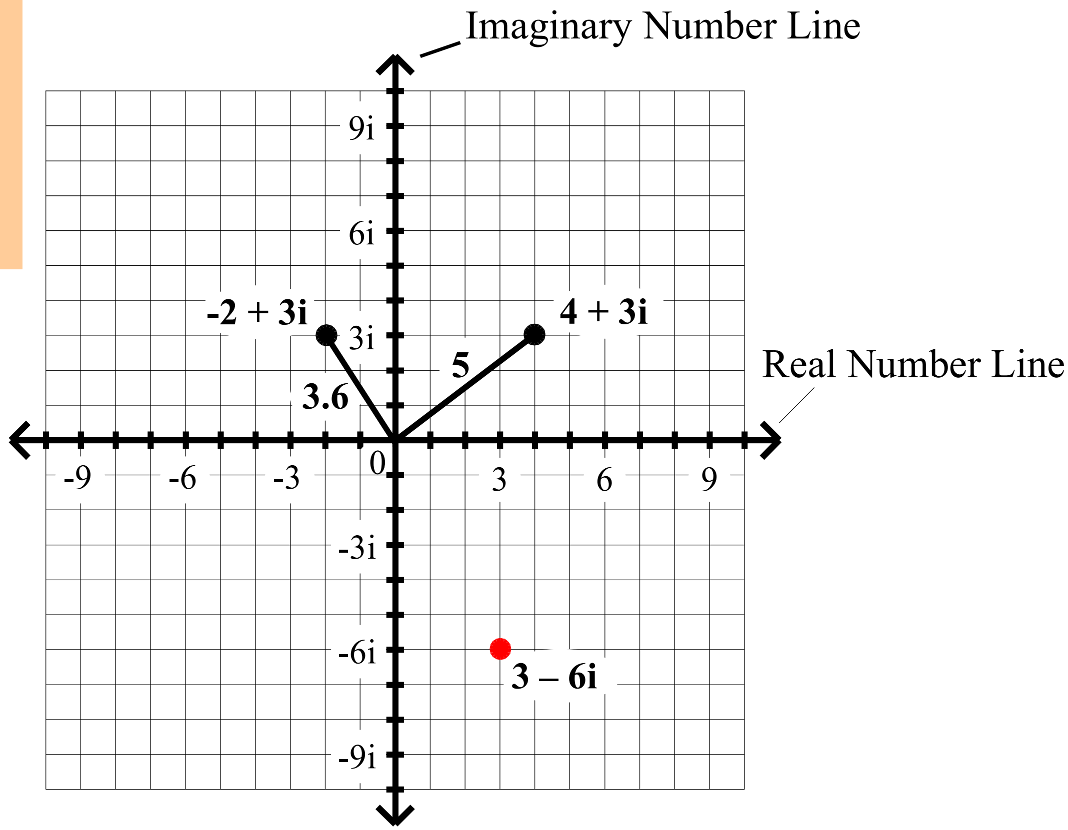

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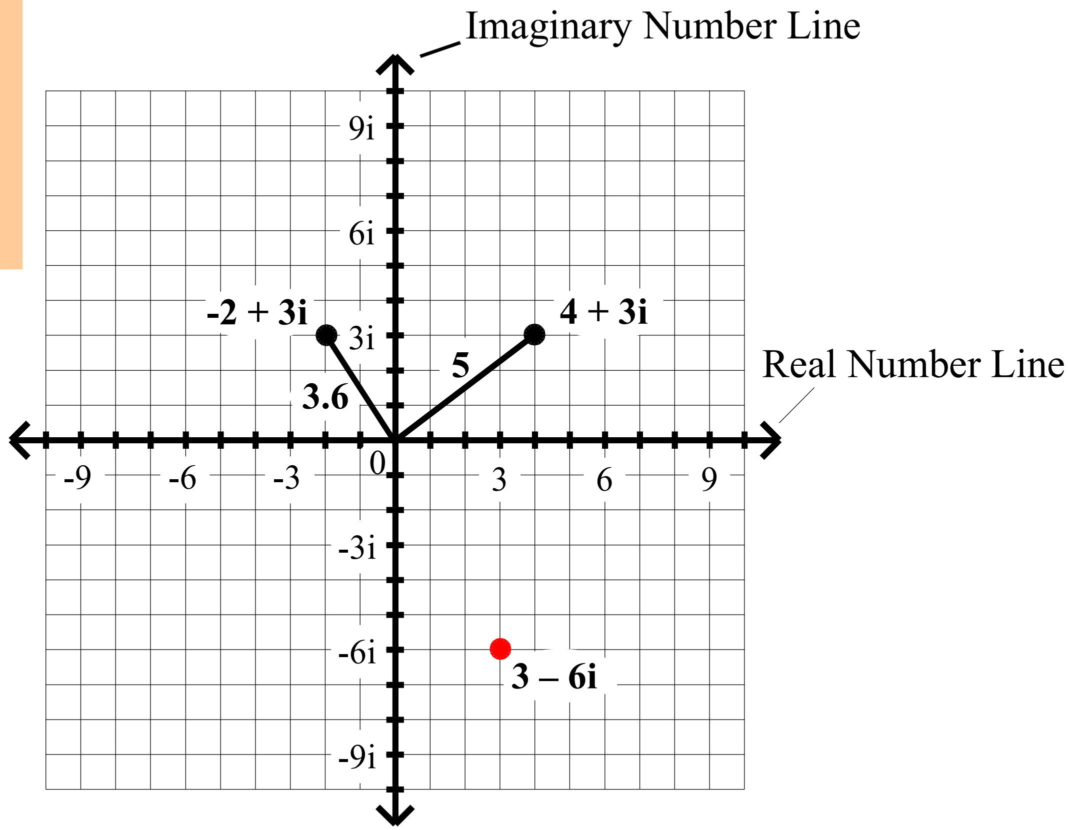

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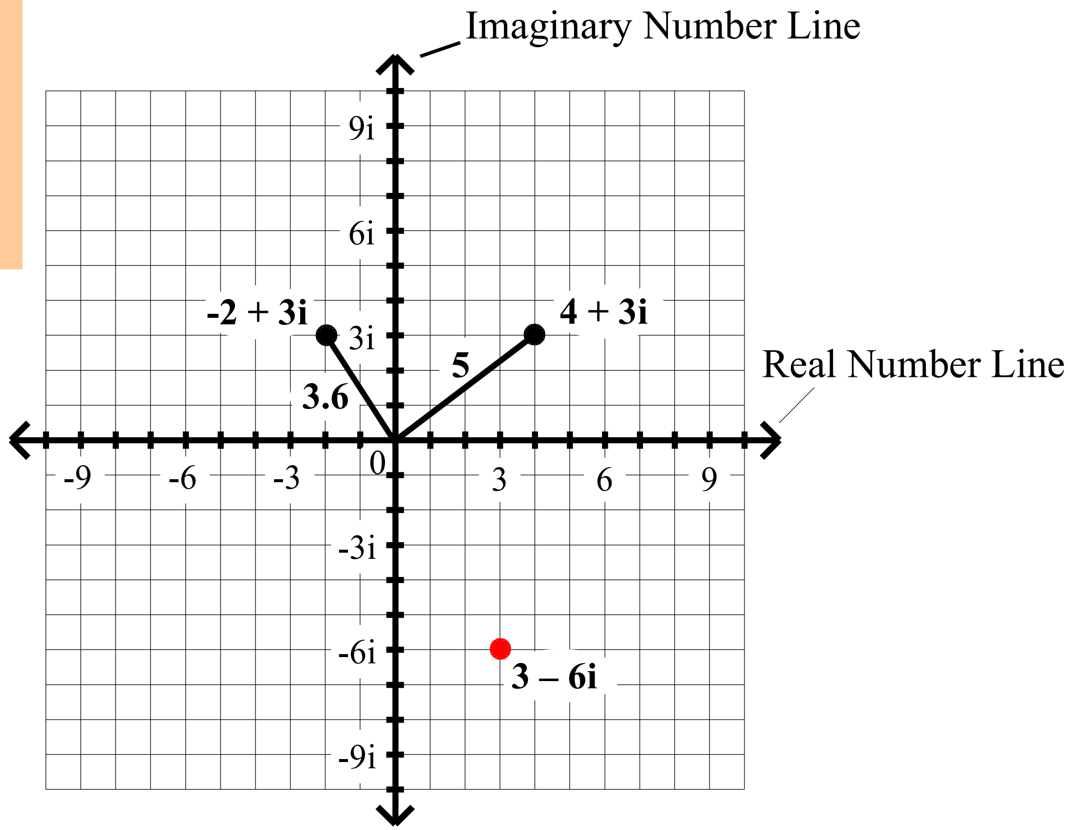

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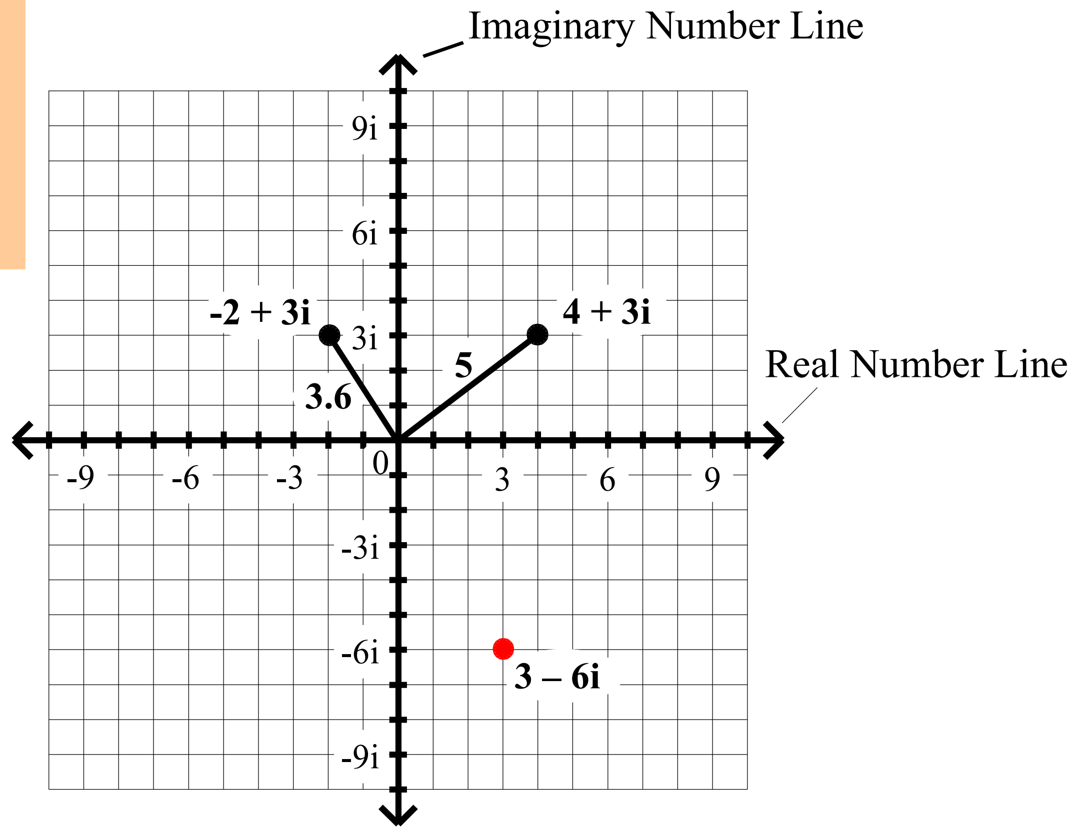

The Absolute Value of Complex Numbers

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Algebra II Class Worksheet #4 Unit 5

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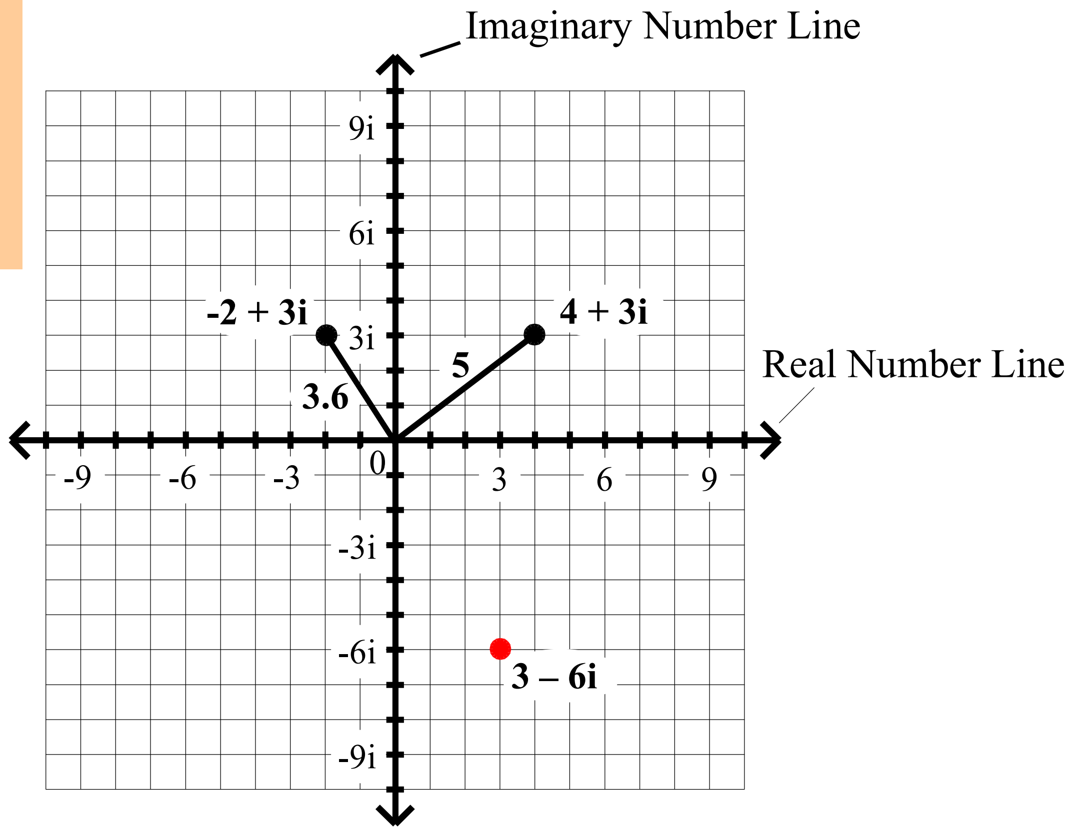

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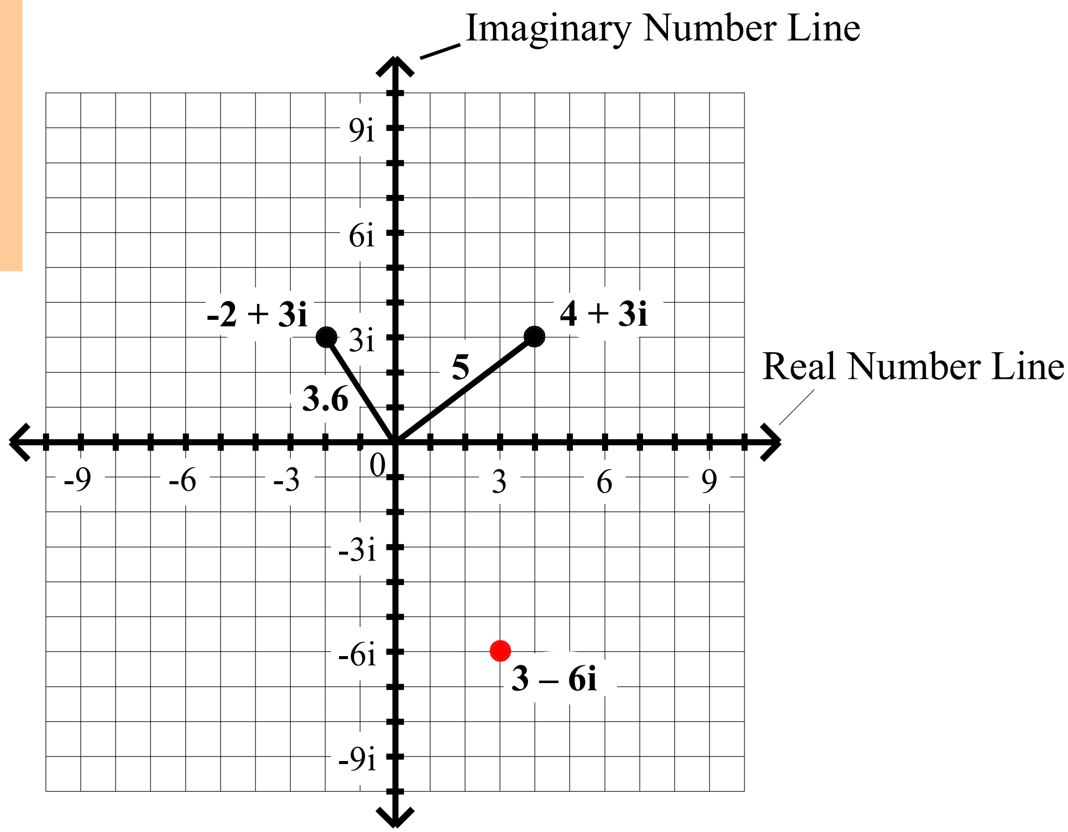

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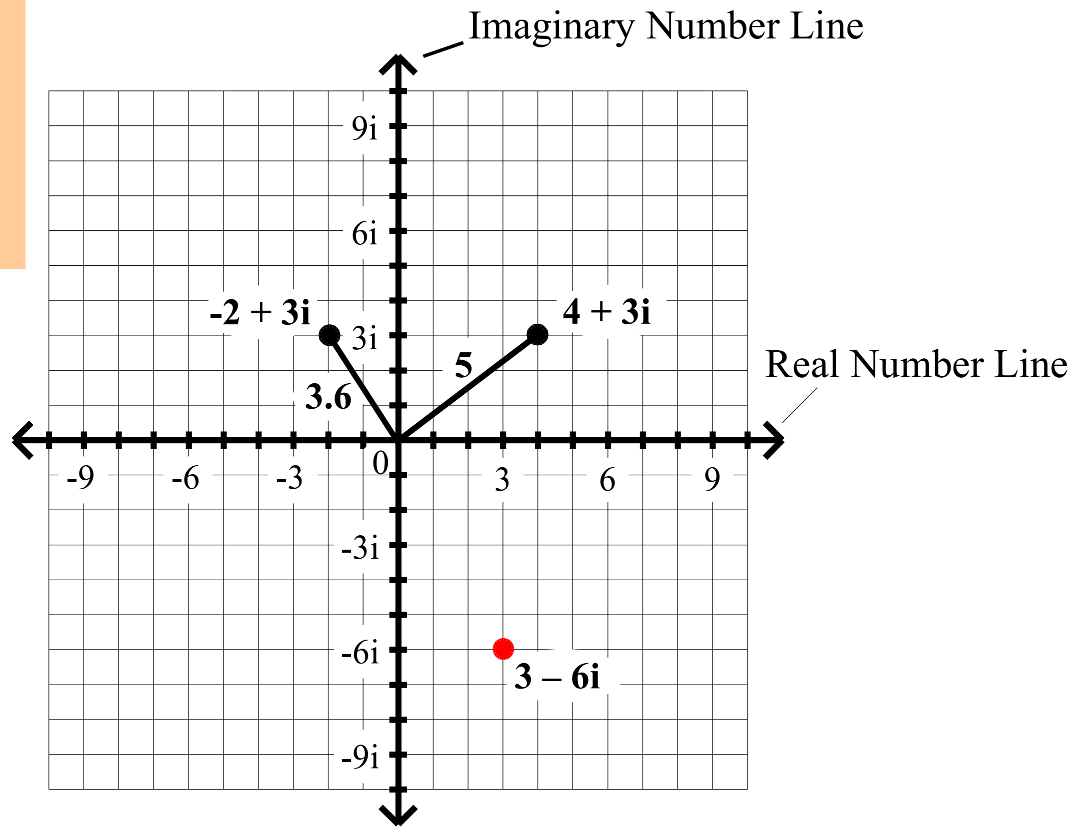

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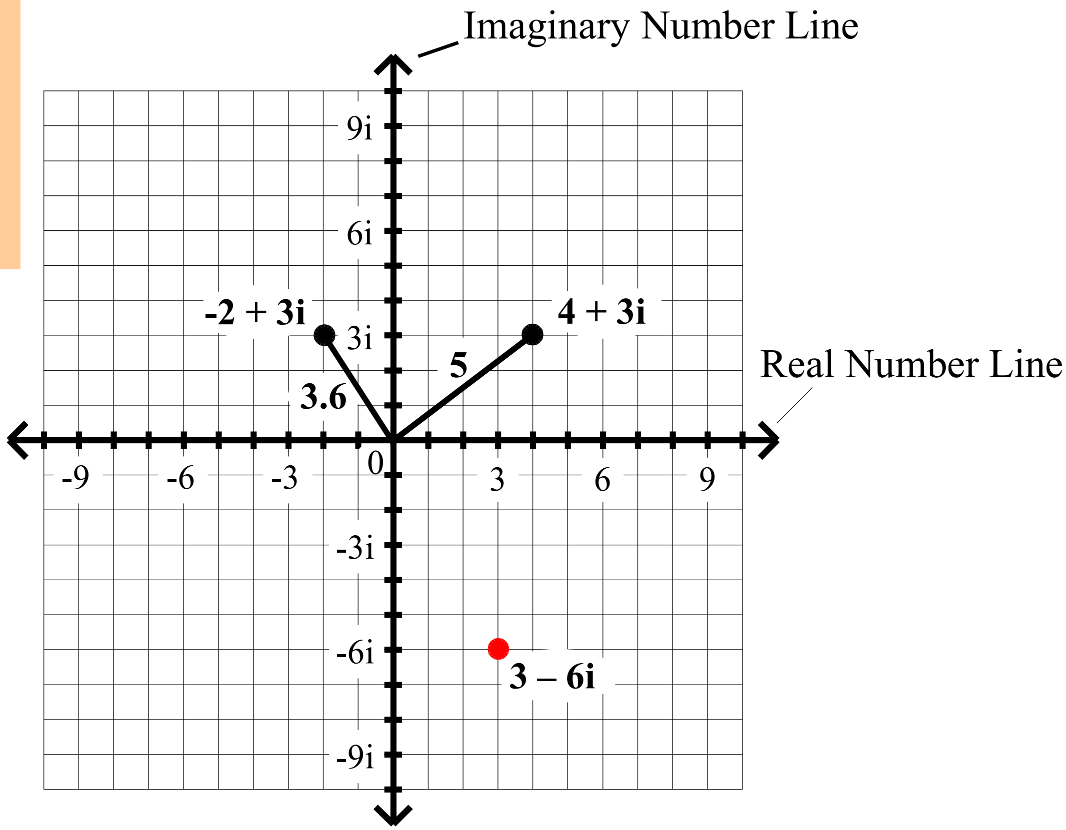

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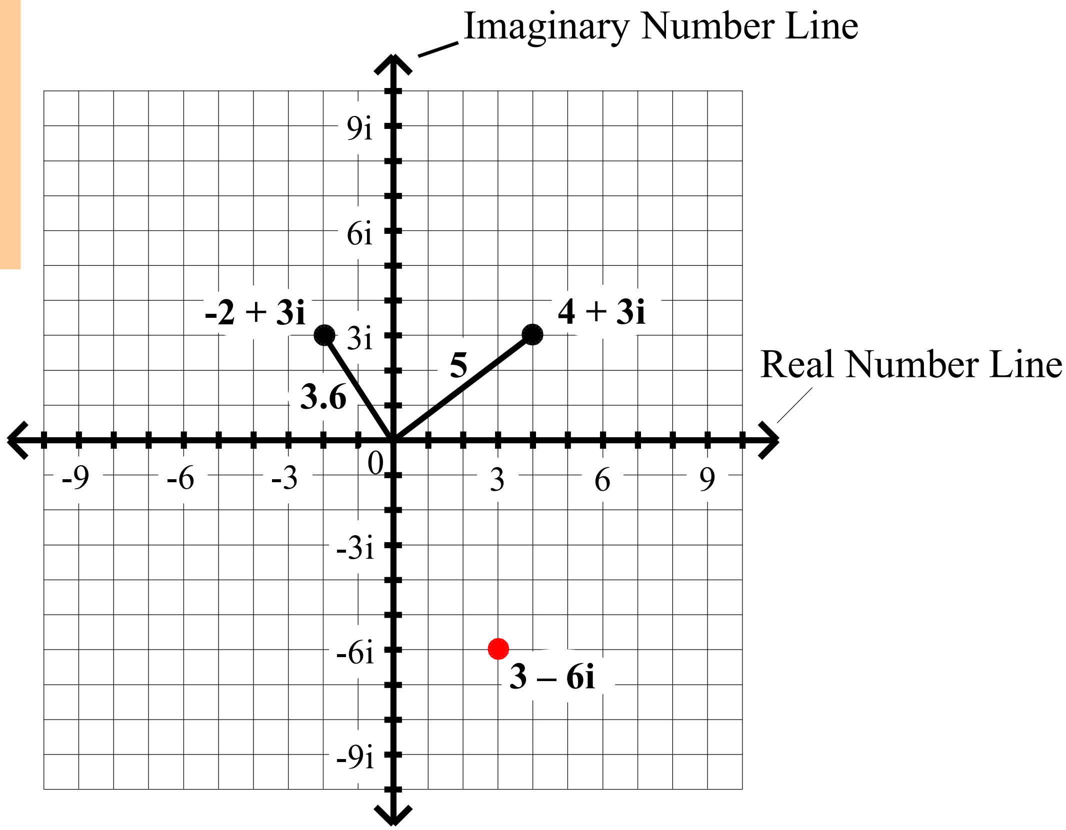

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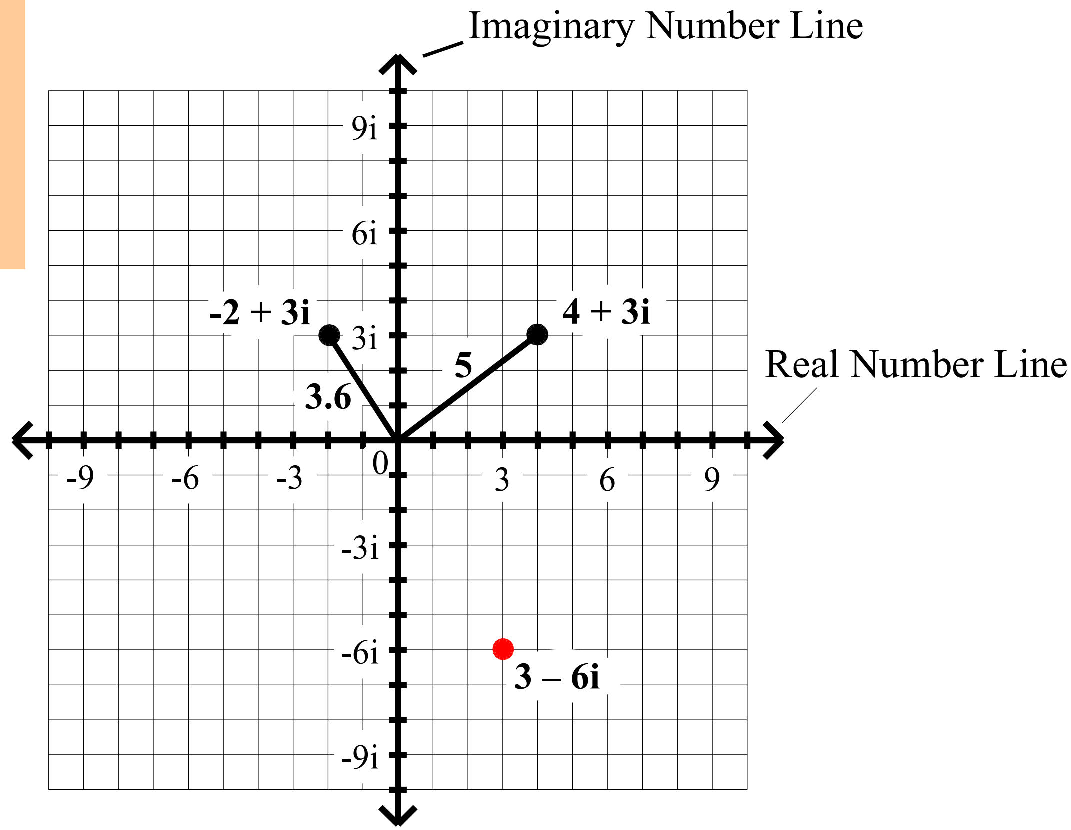

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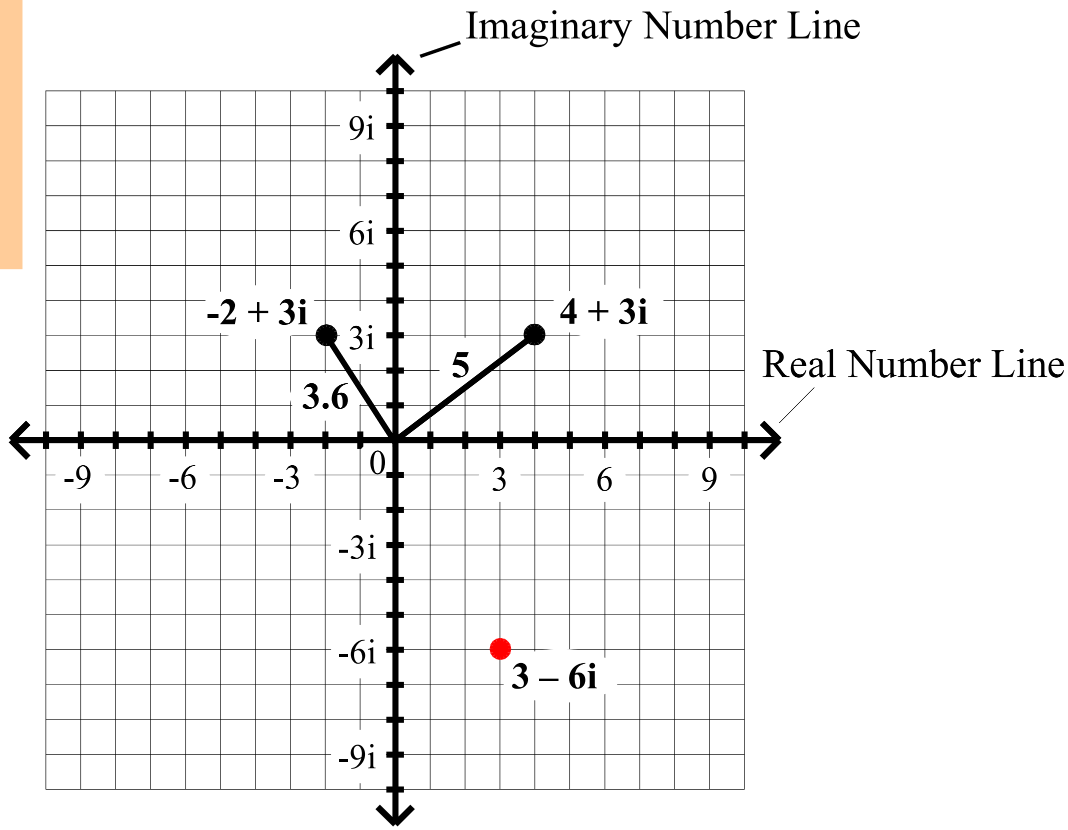

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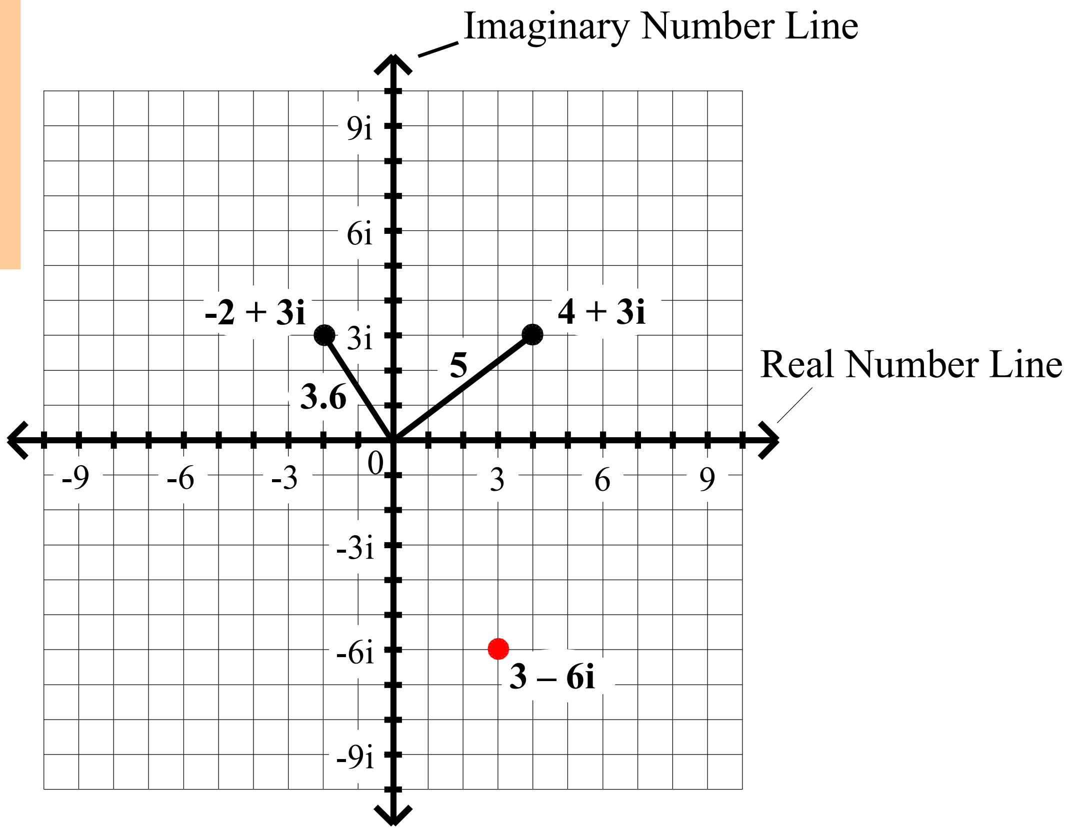

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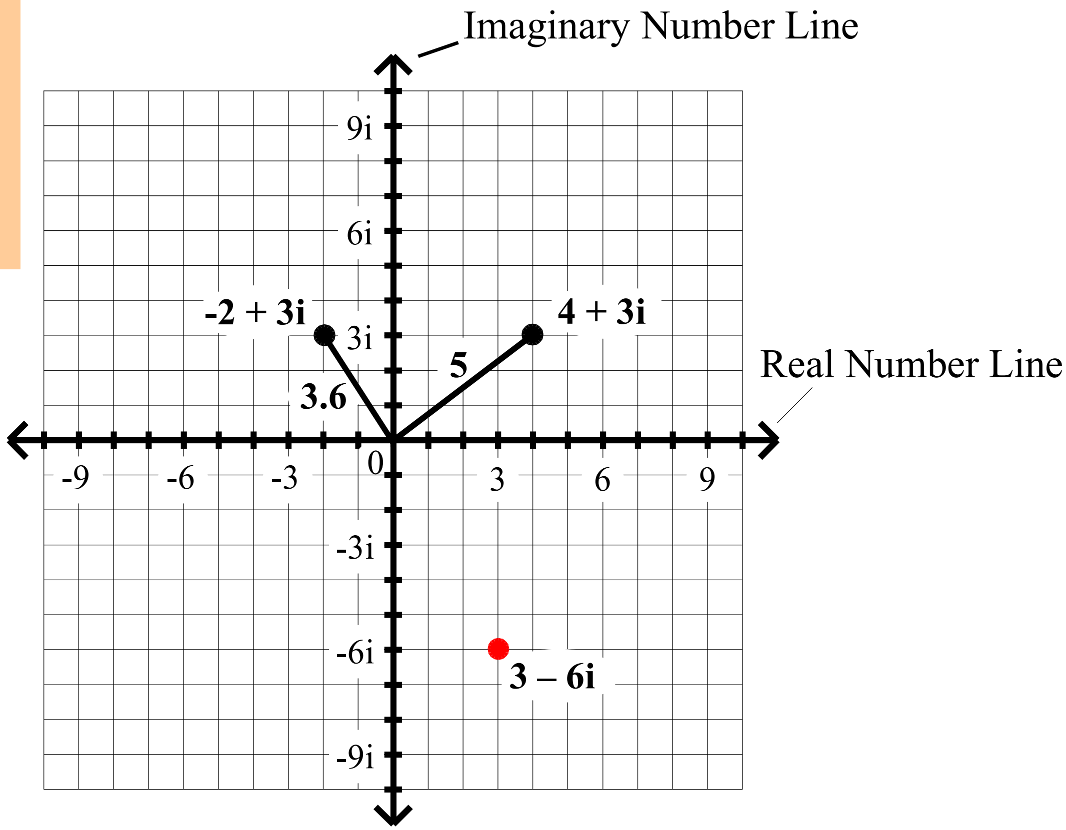

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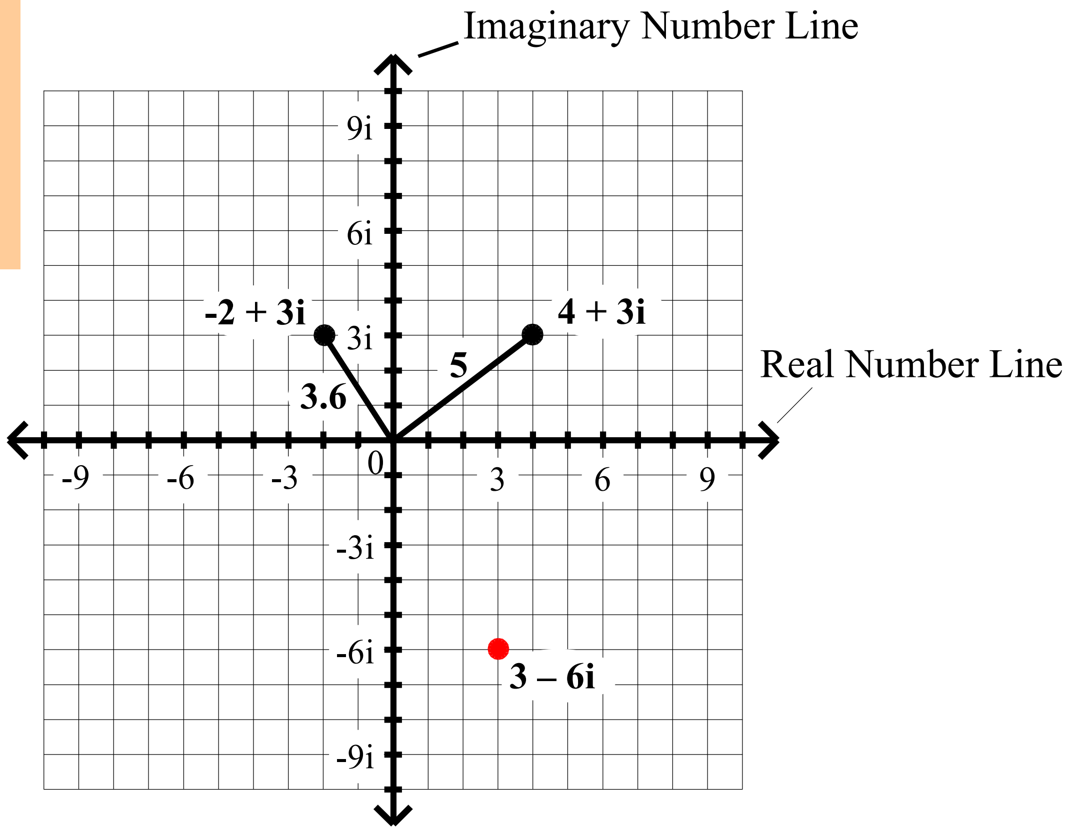

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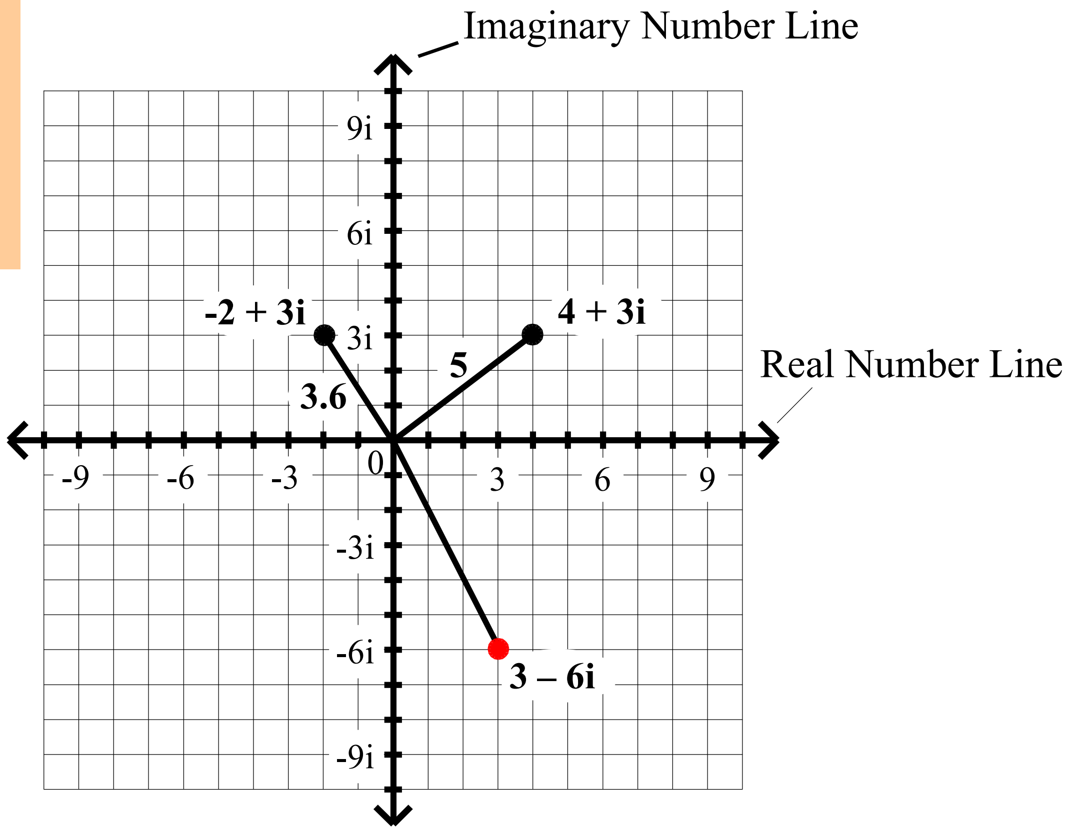

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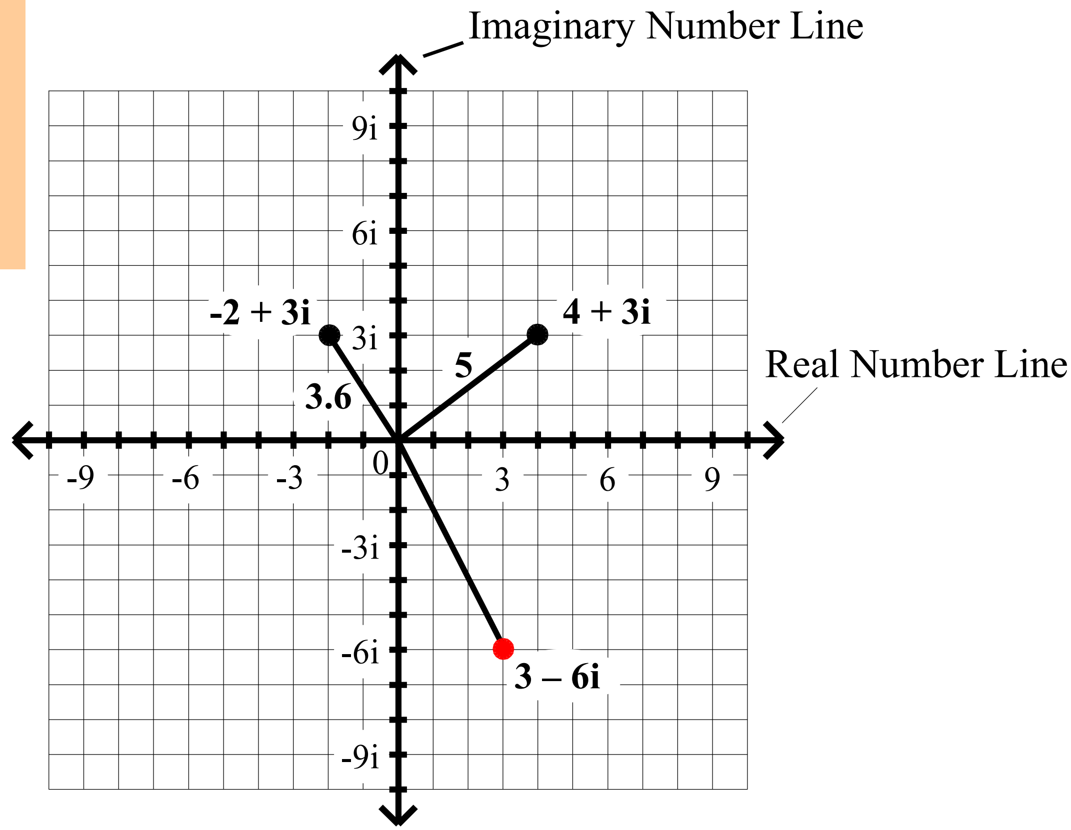

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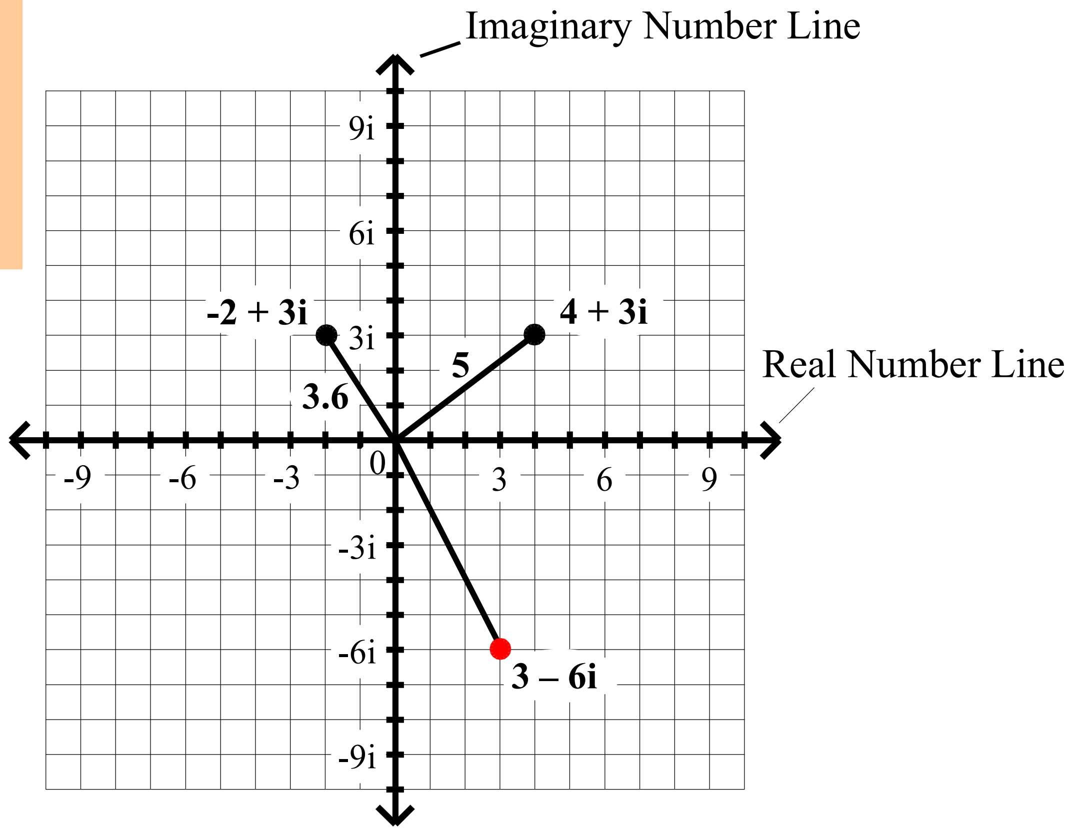

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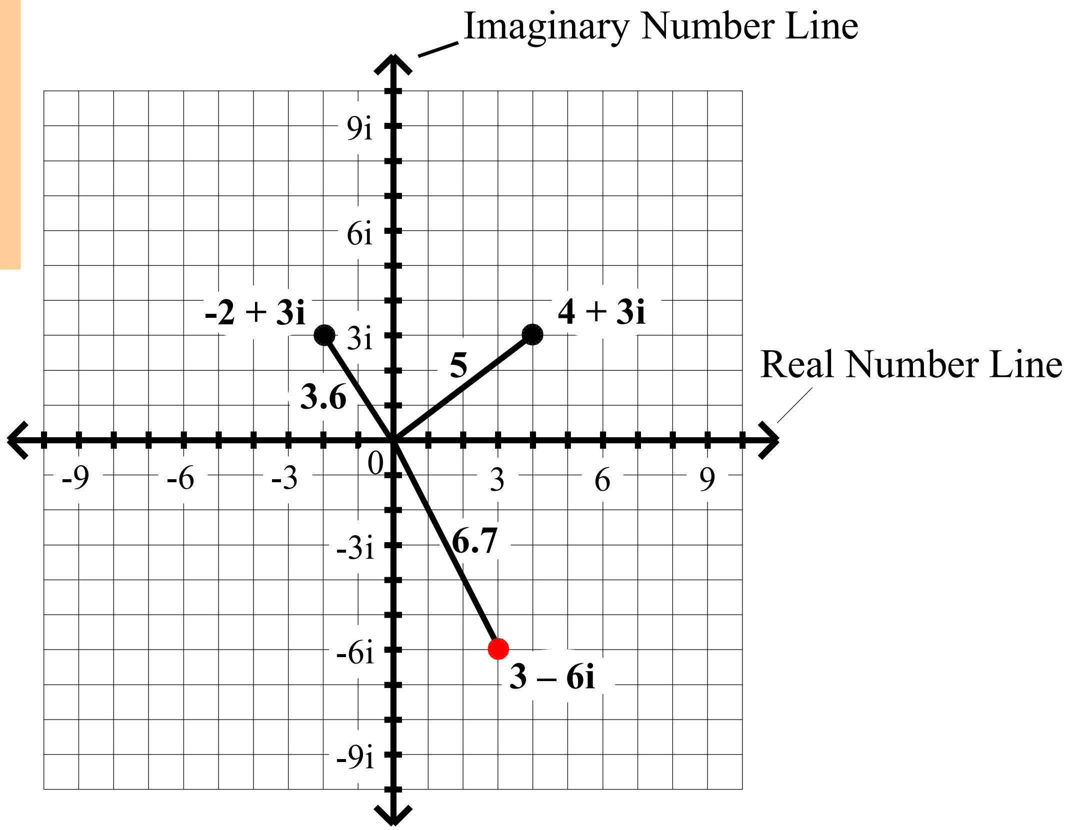

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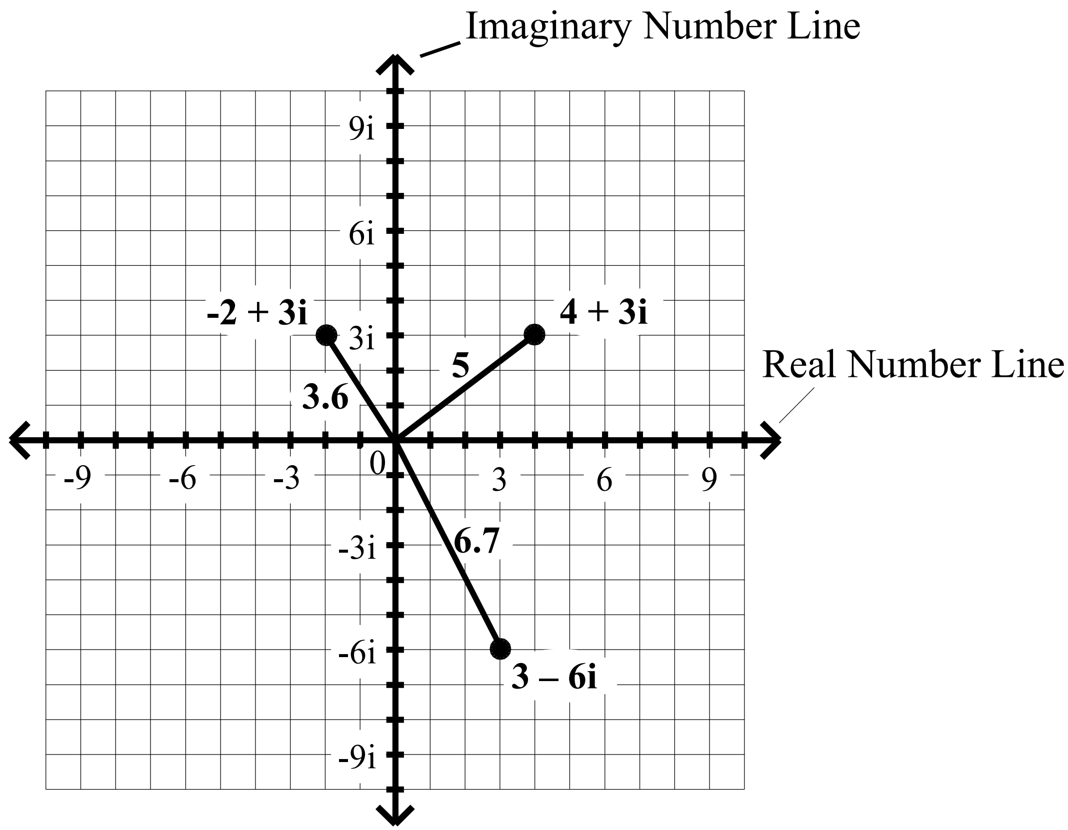

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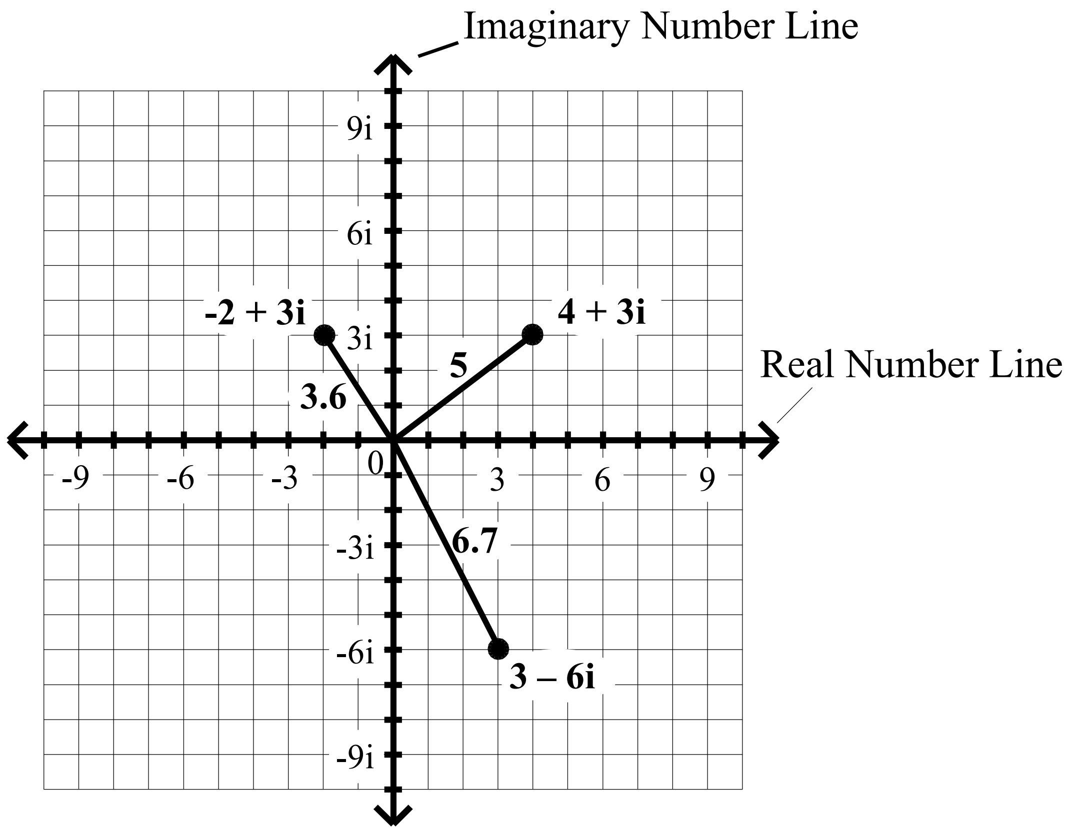

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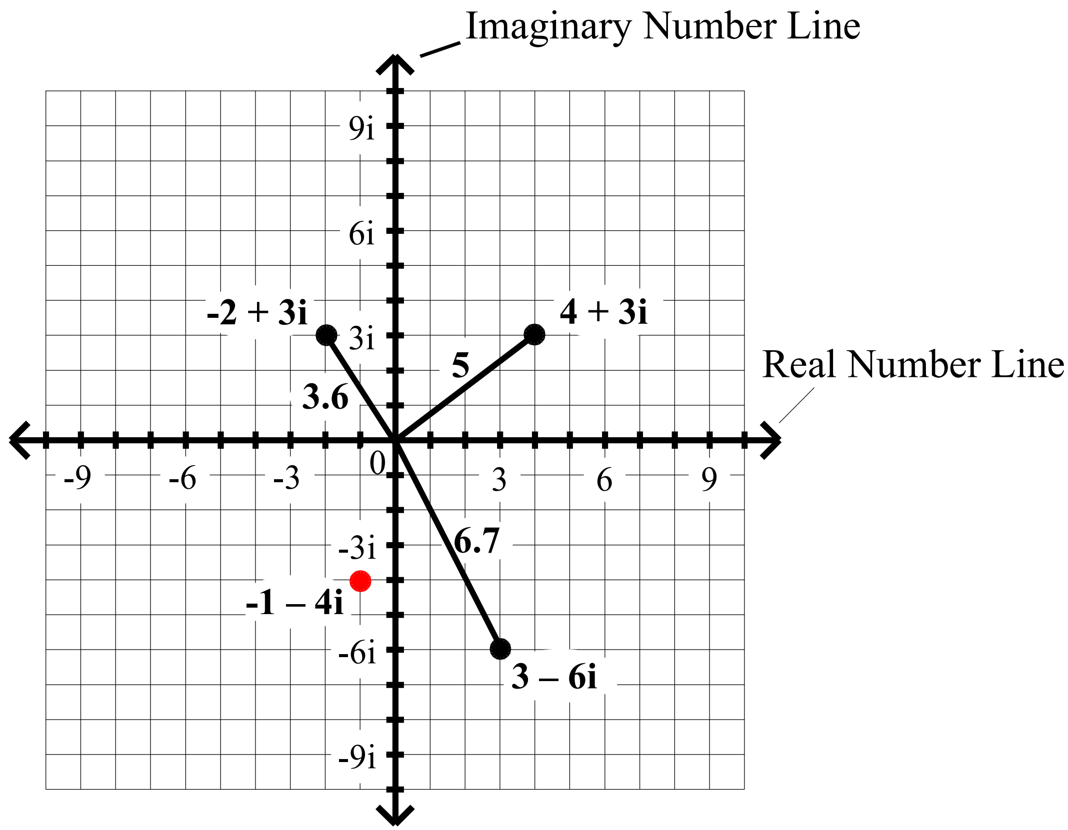

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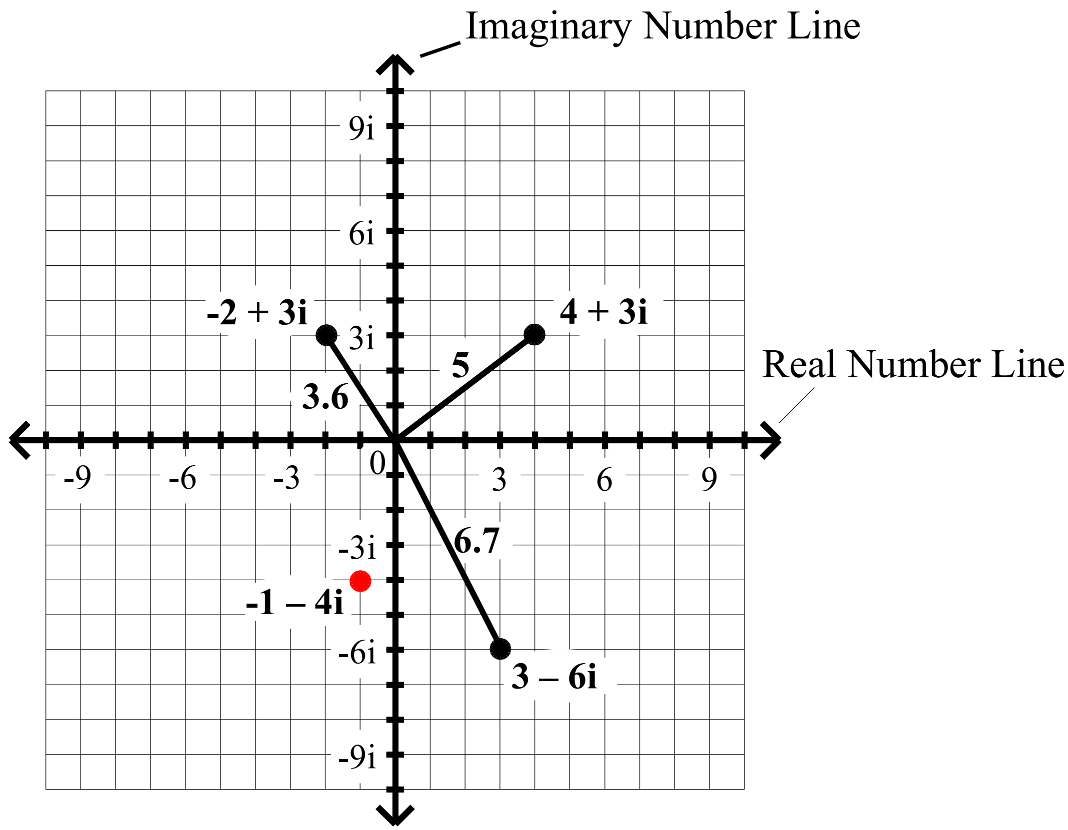

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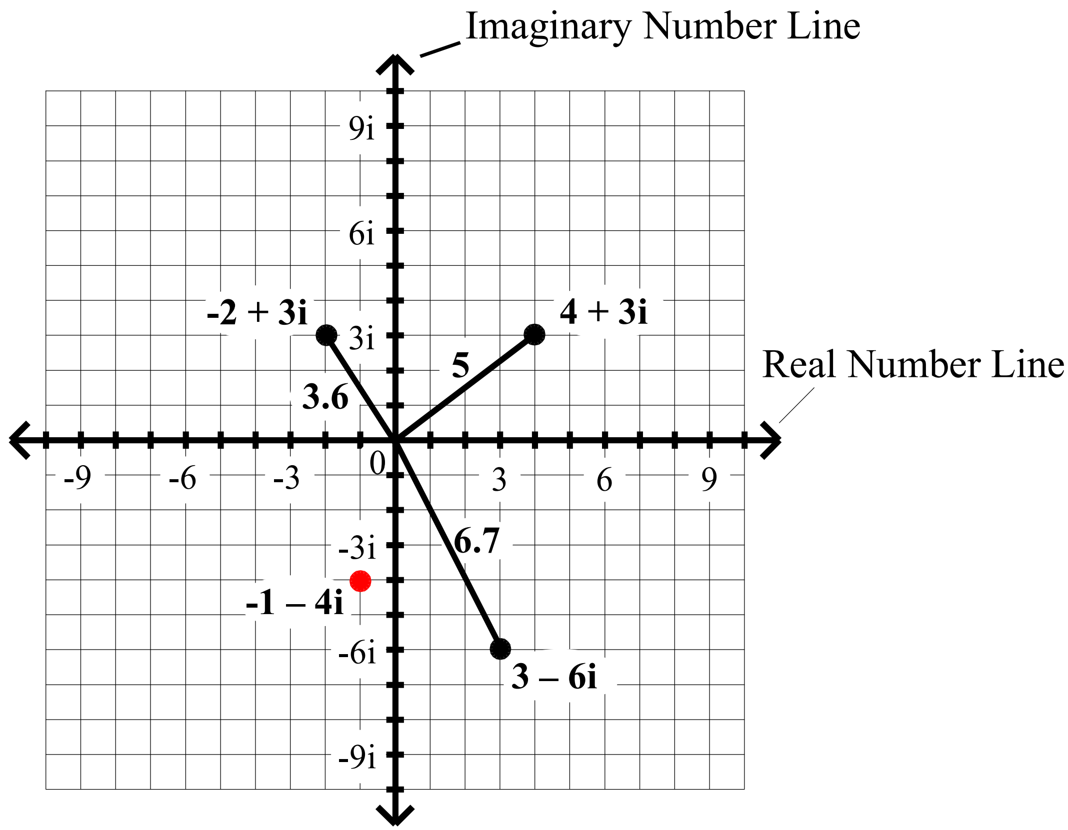

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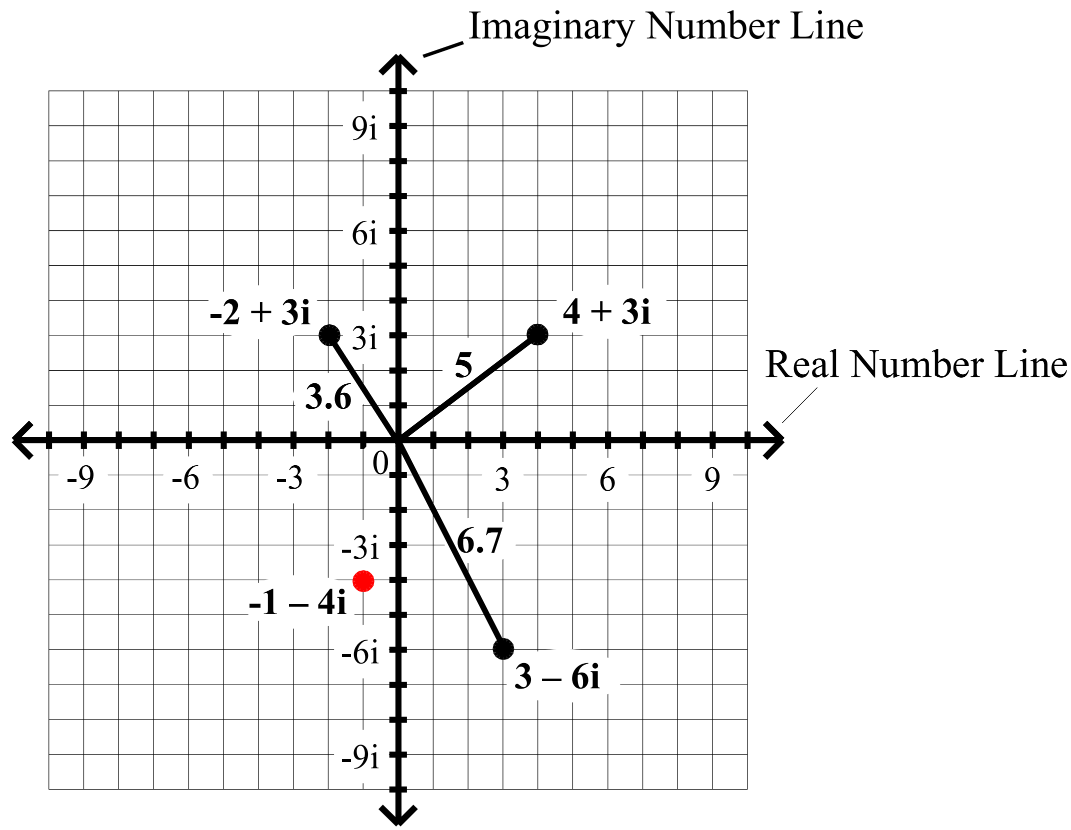

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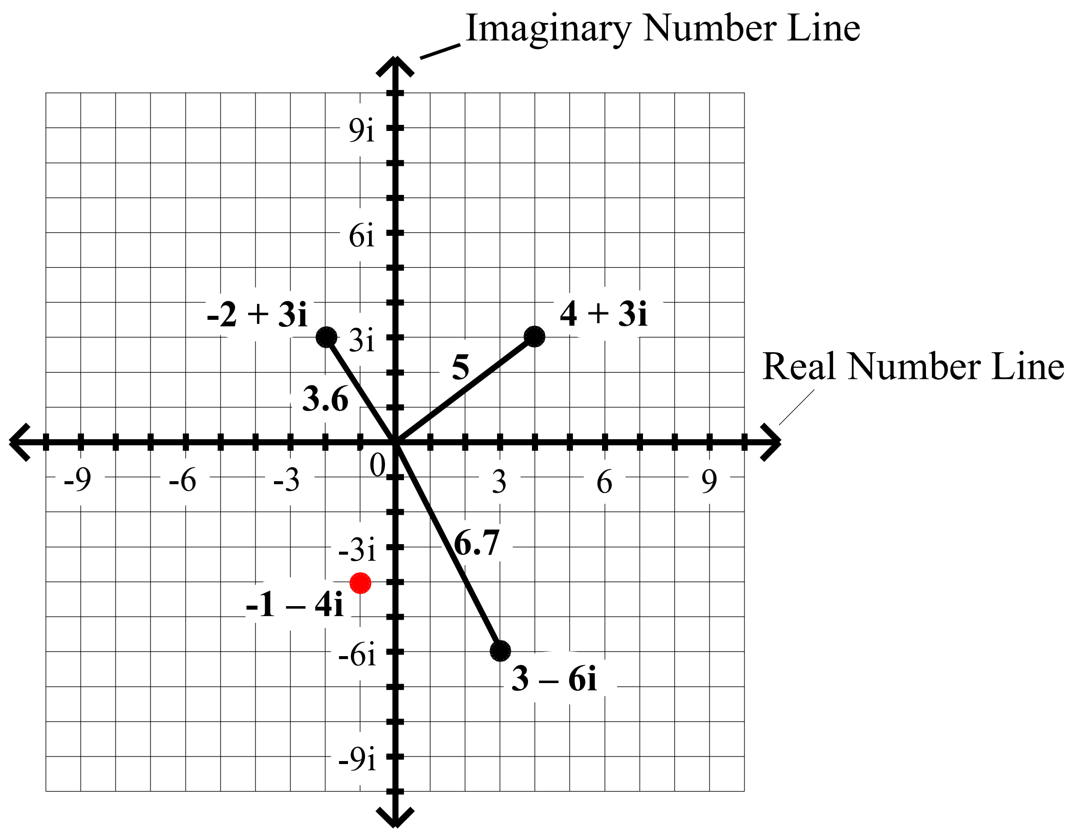

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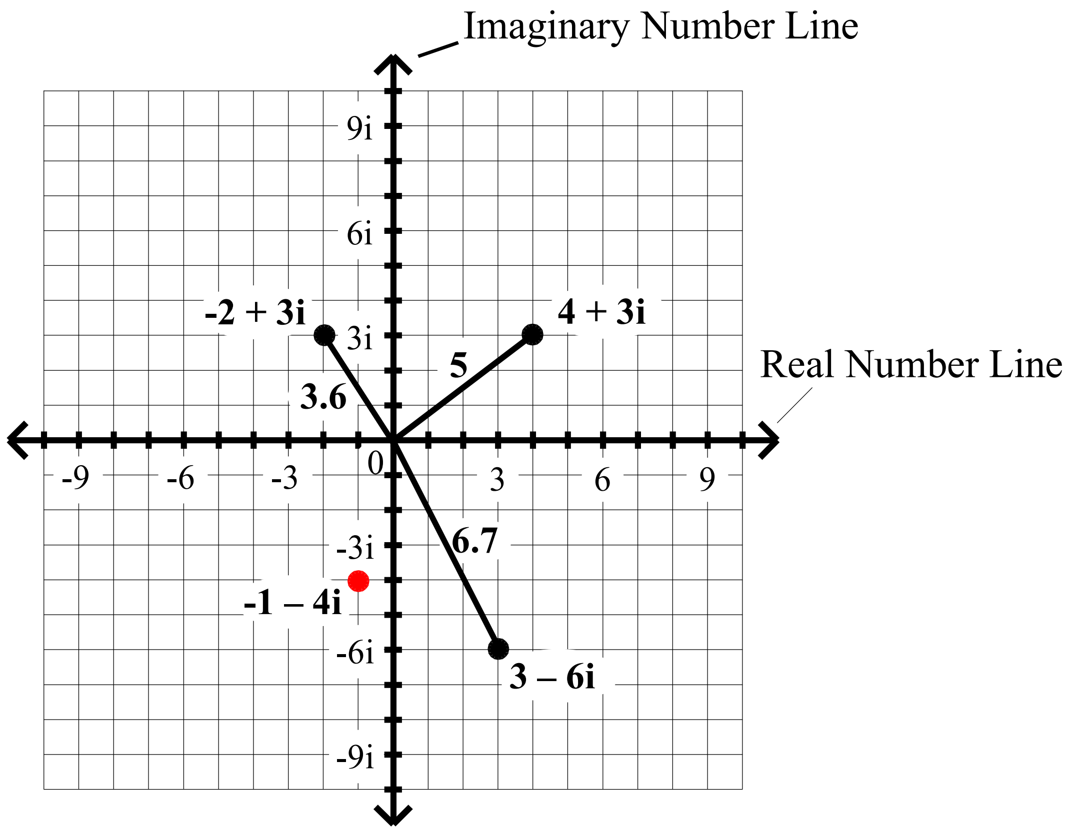

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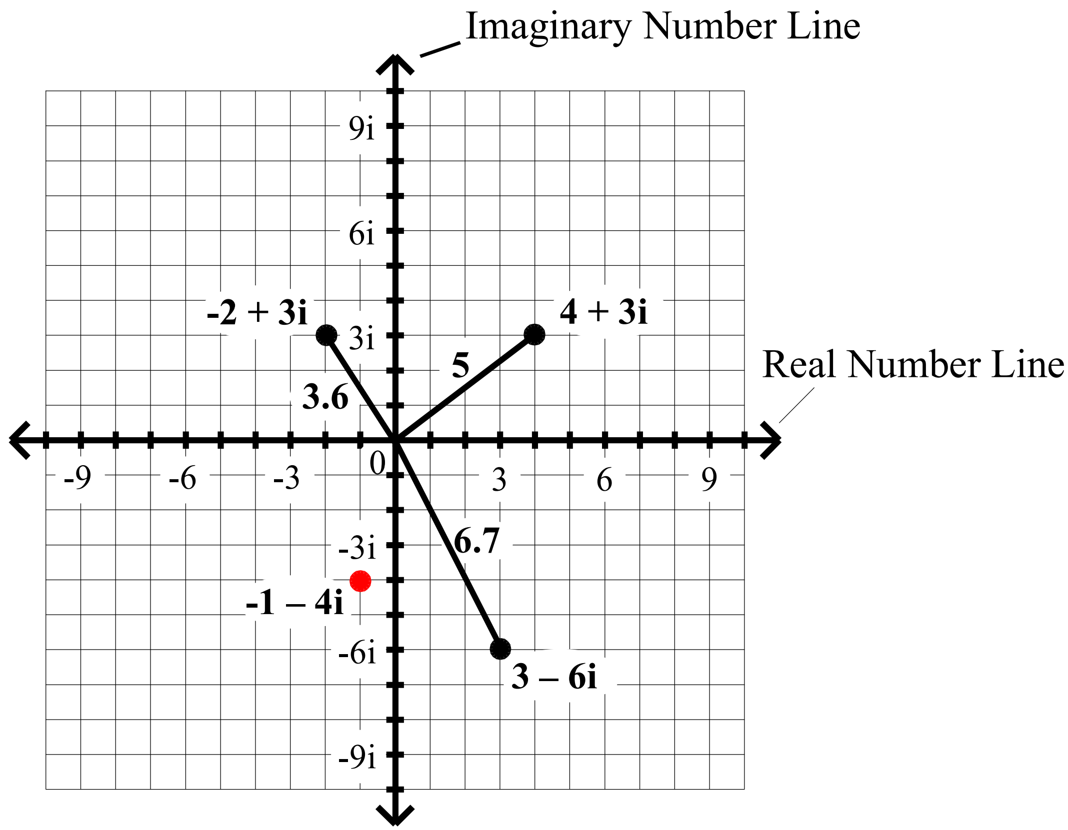

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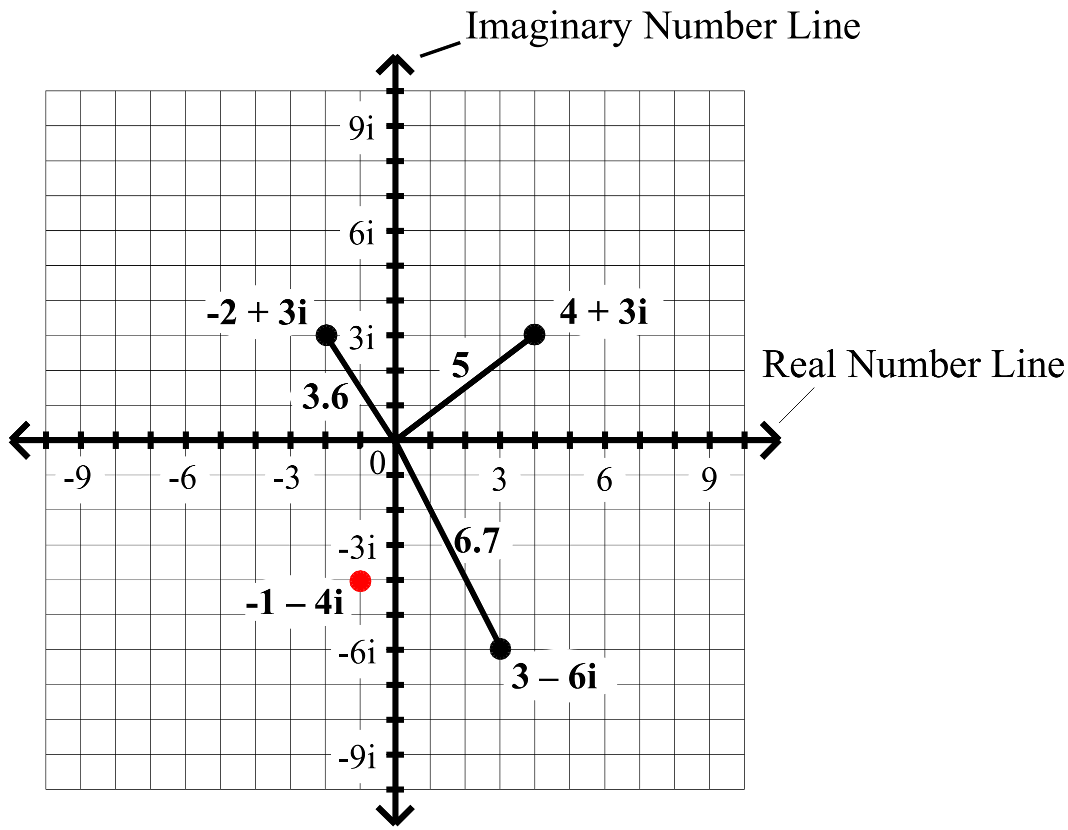

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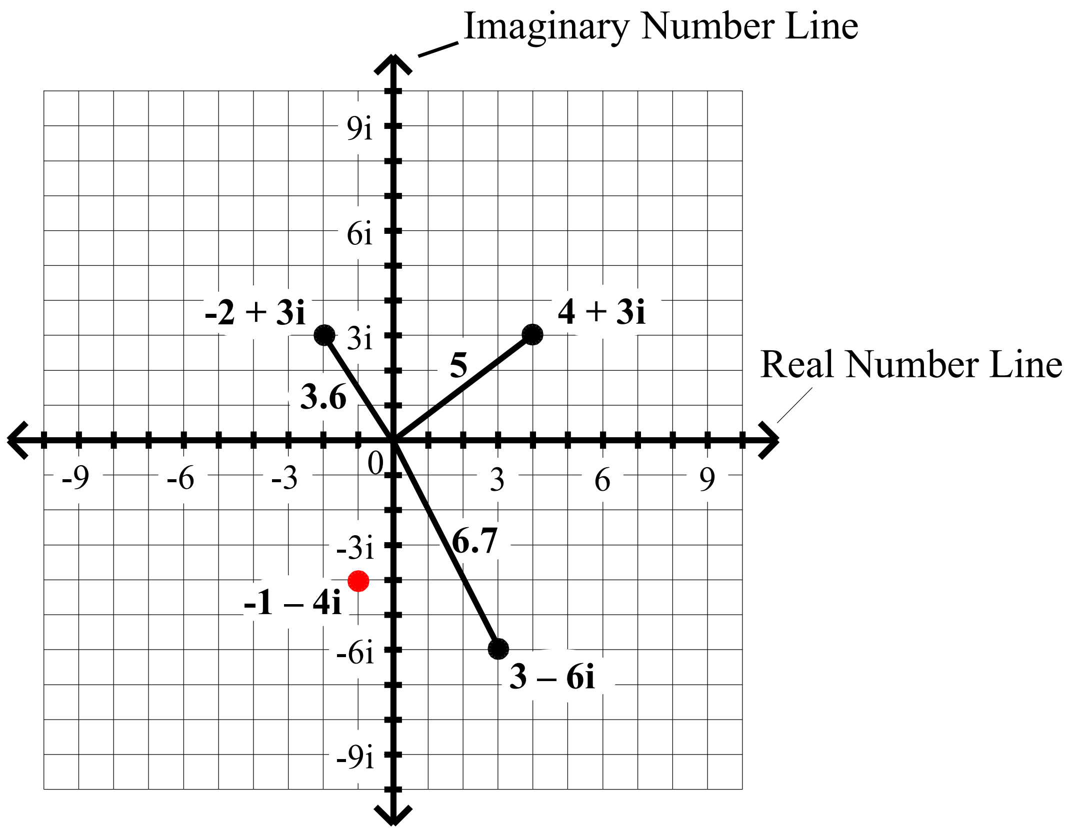

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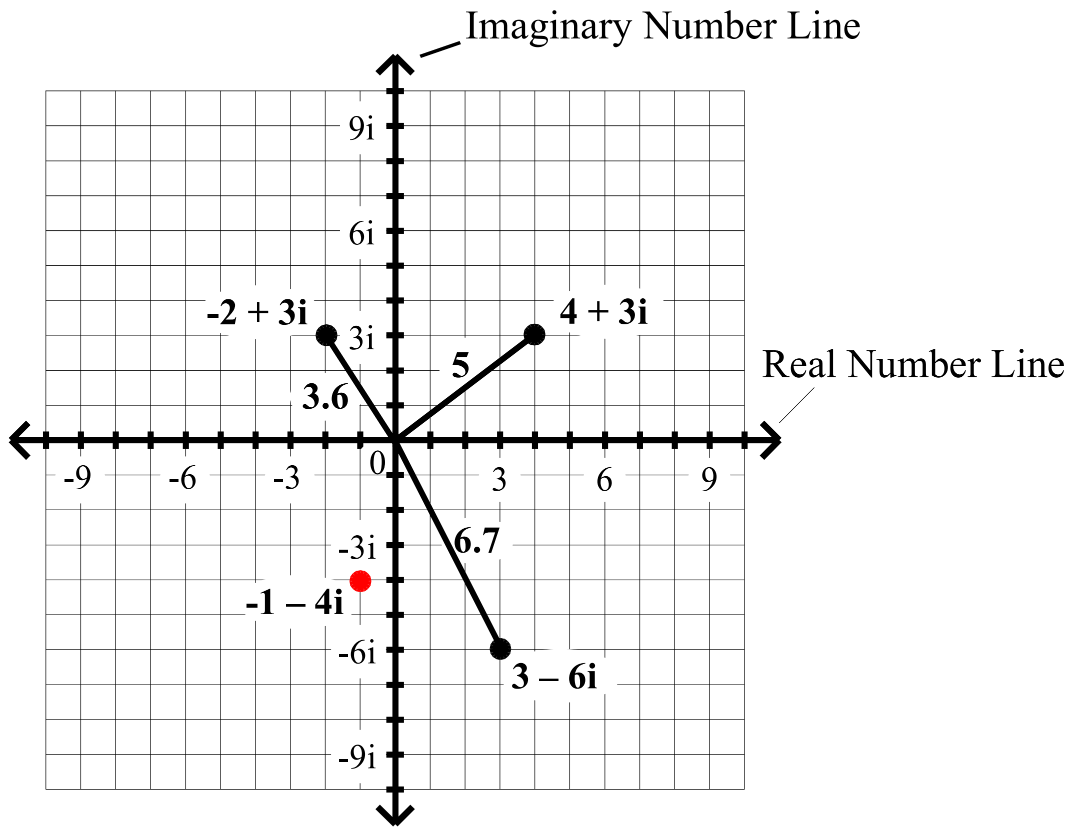

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The Absolute Value of Complex Numbers

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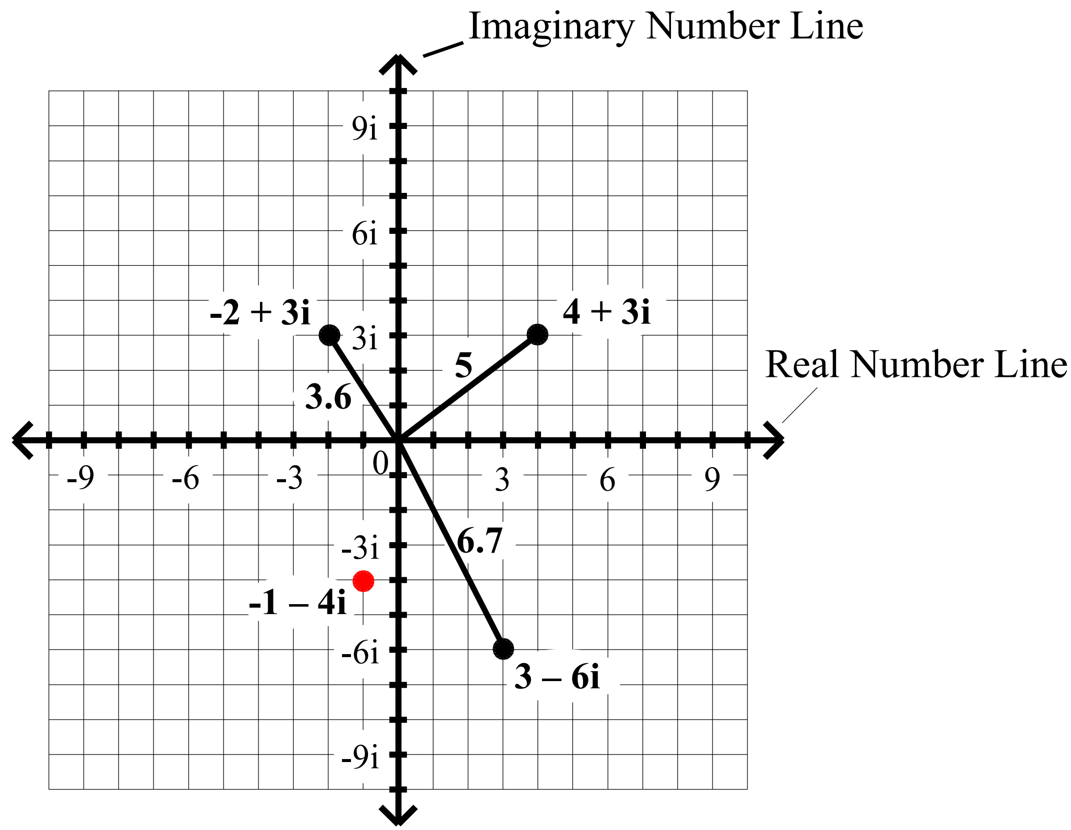
The Complex Number Plane



Algebra II Class Worksheet #4 Unit 5

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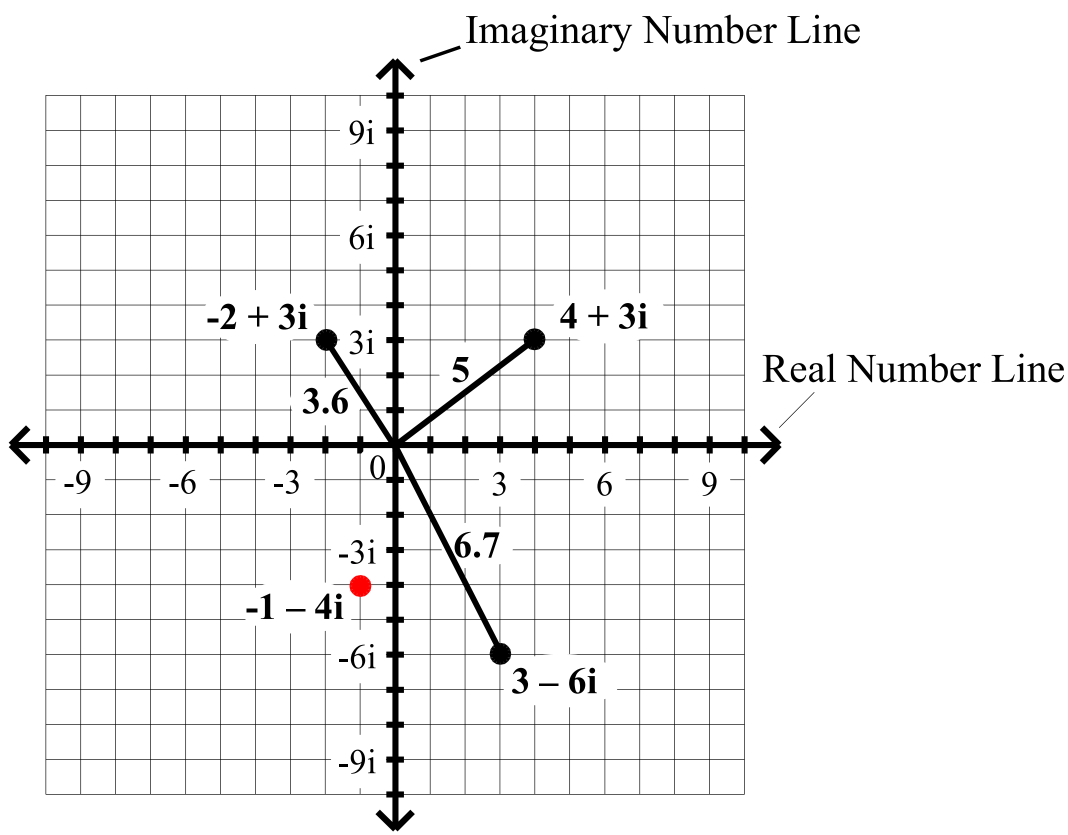

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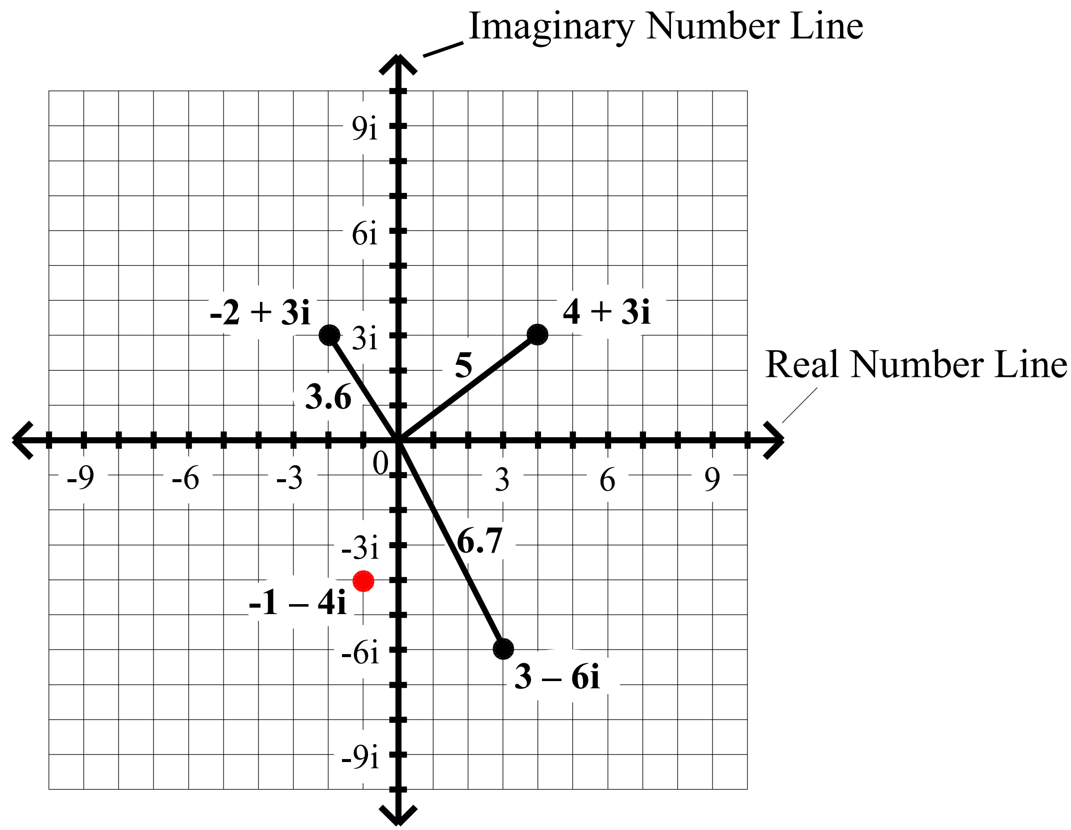

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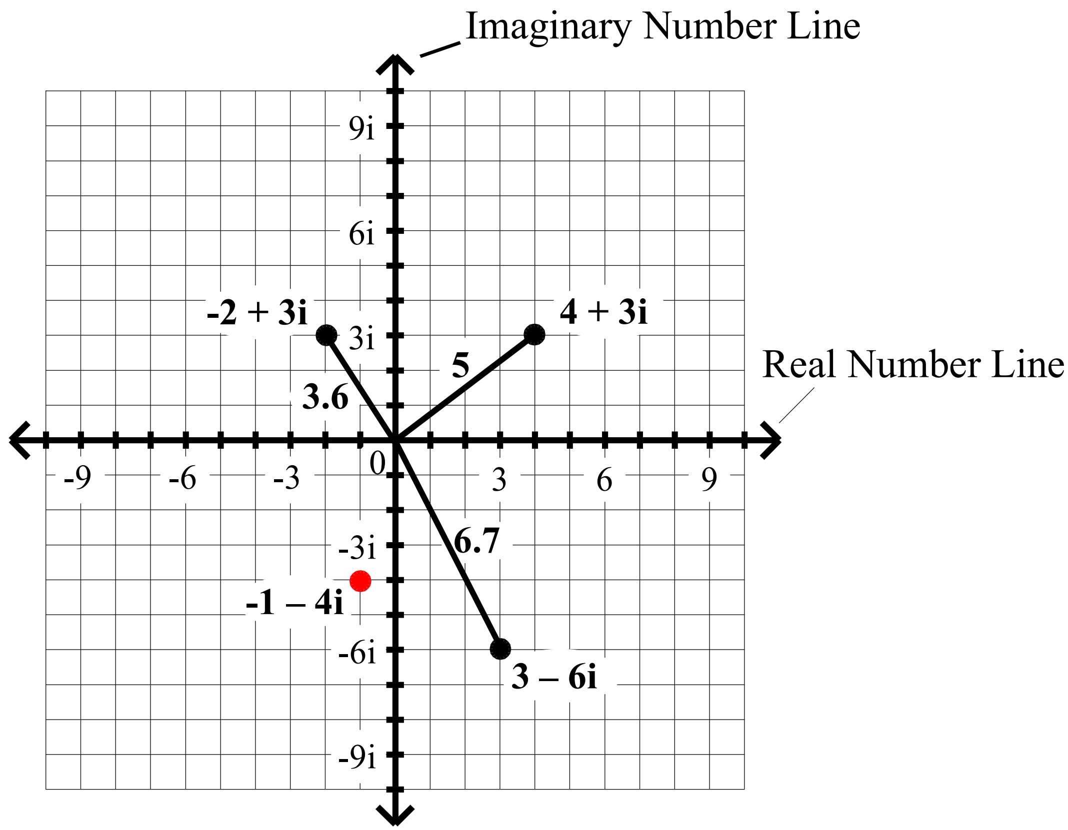

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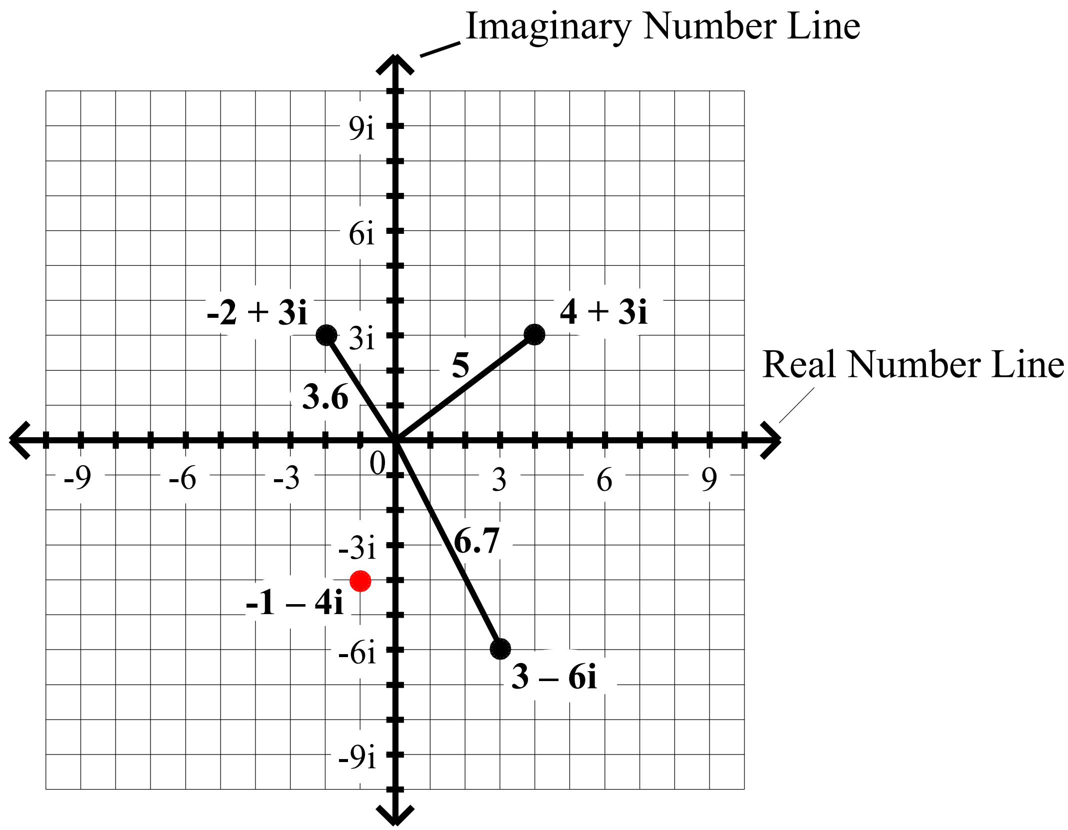

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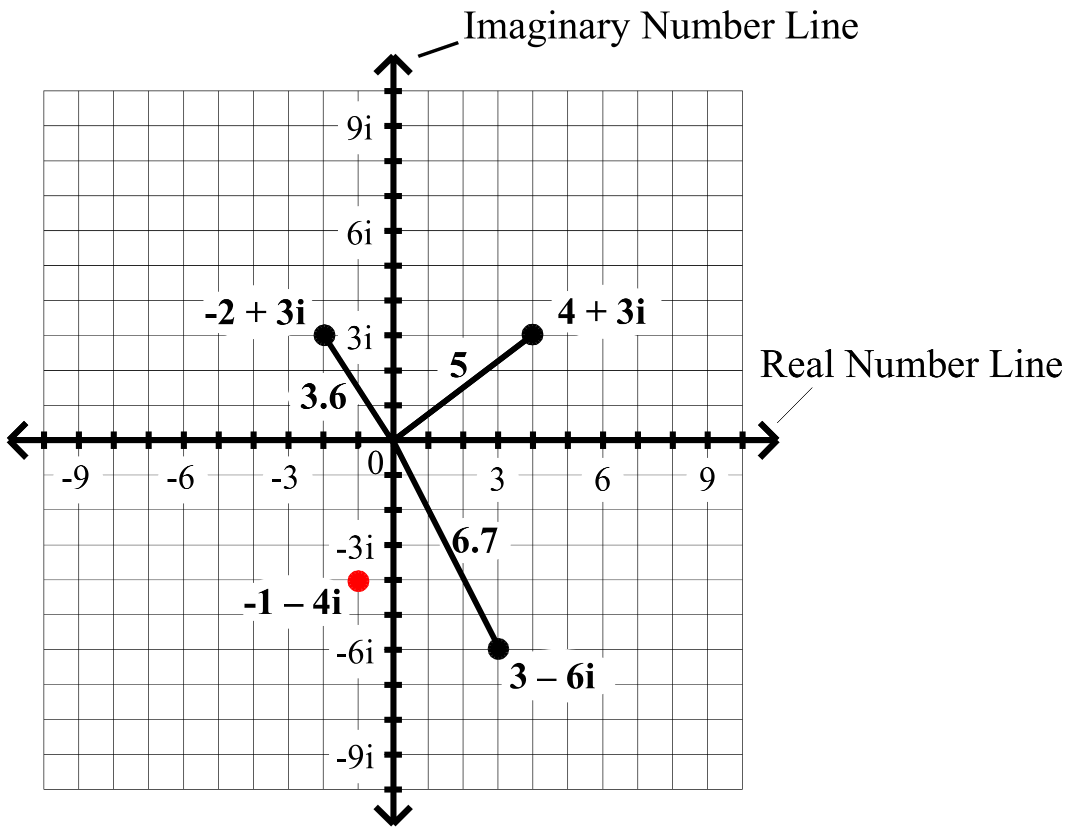

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The distance from -1 – 4i to zero

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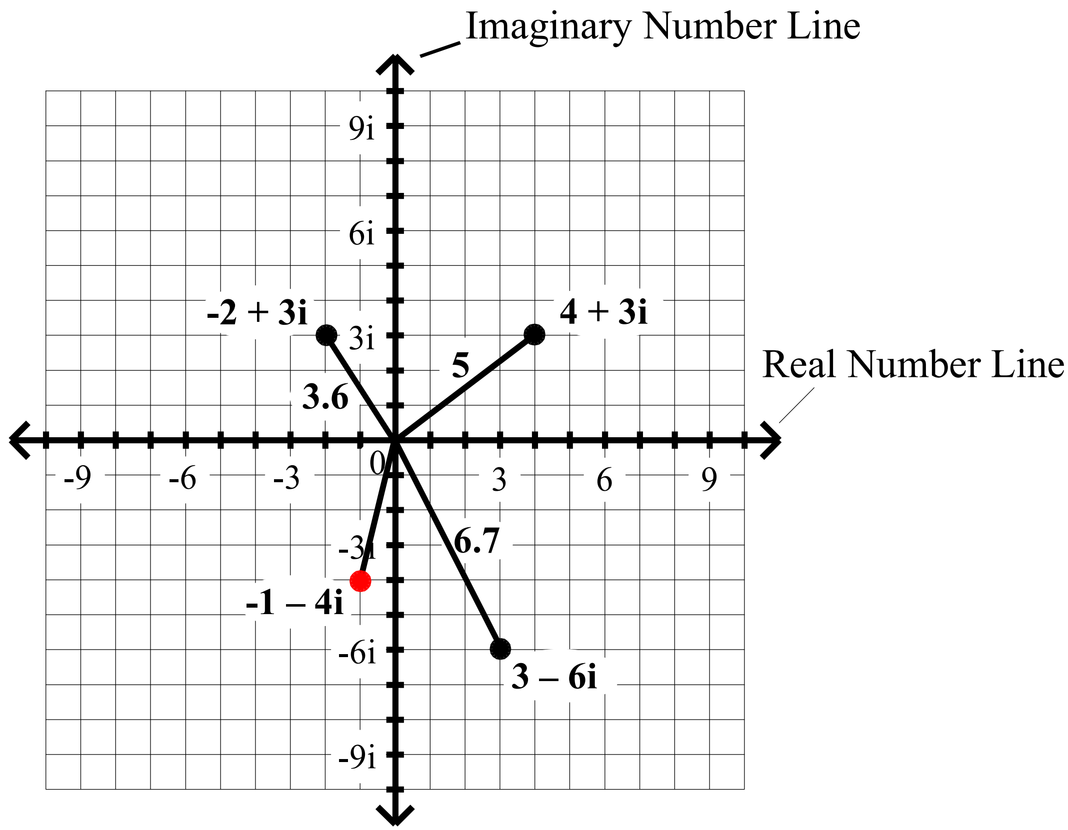

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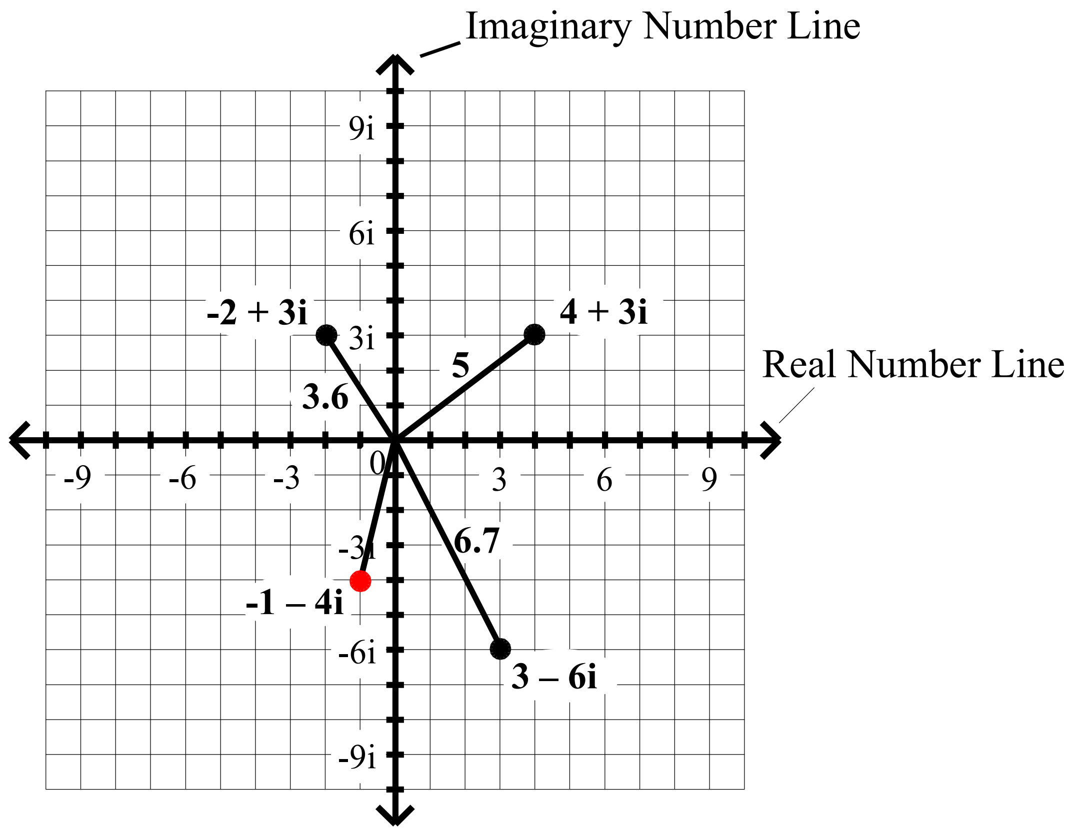

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The distance from -1 – 4i to zero is $\sqrt{17}$

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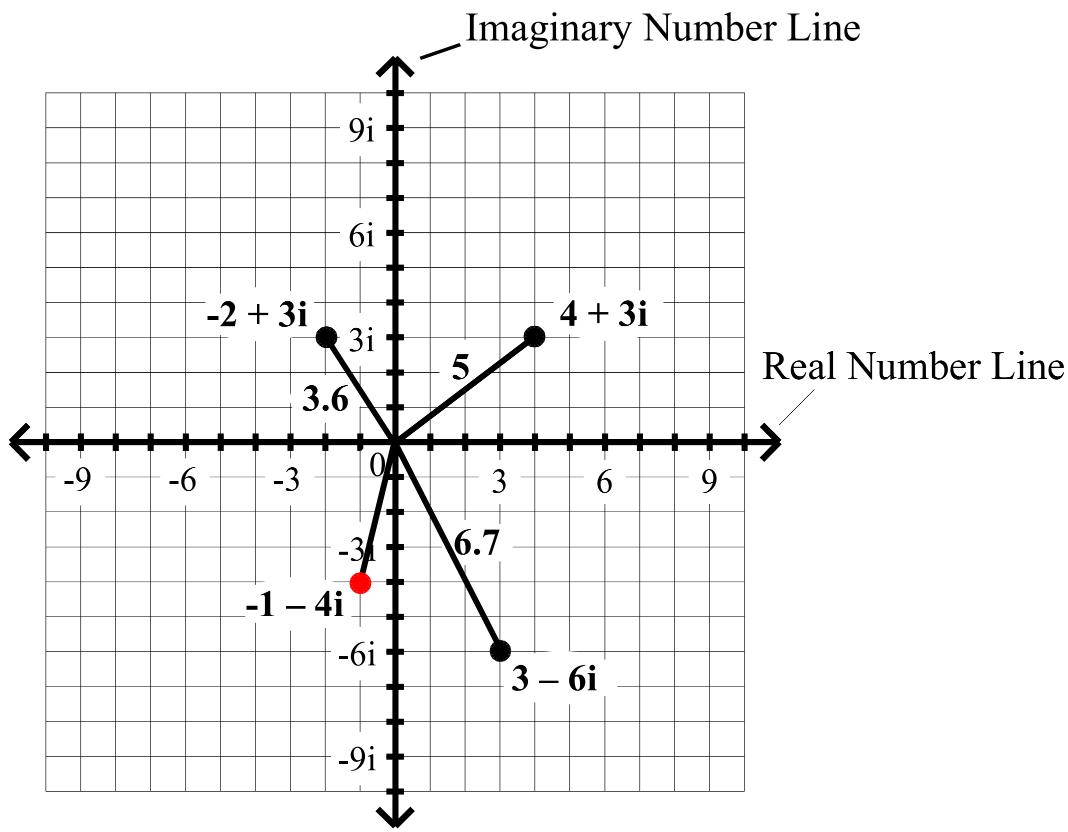

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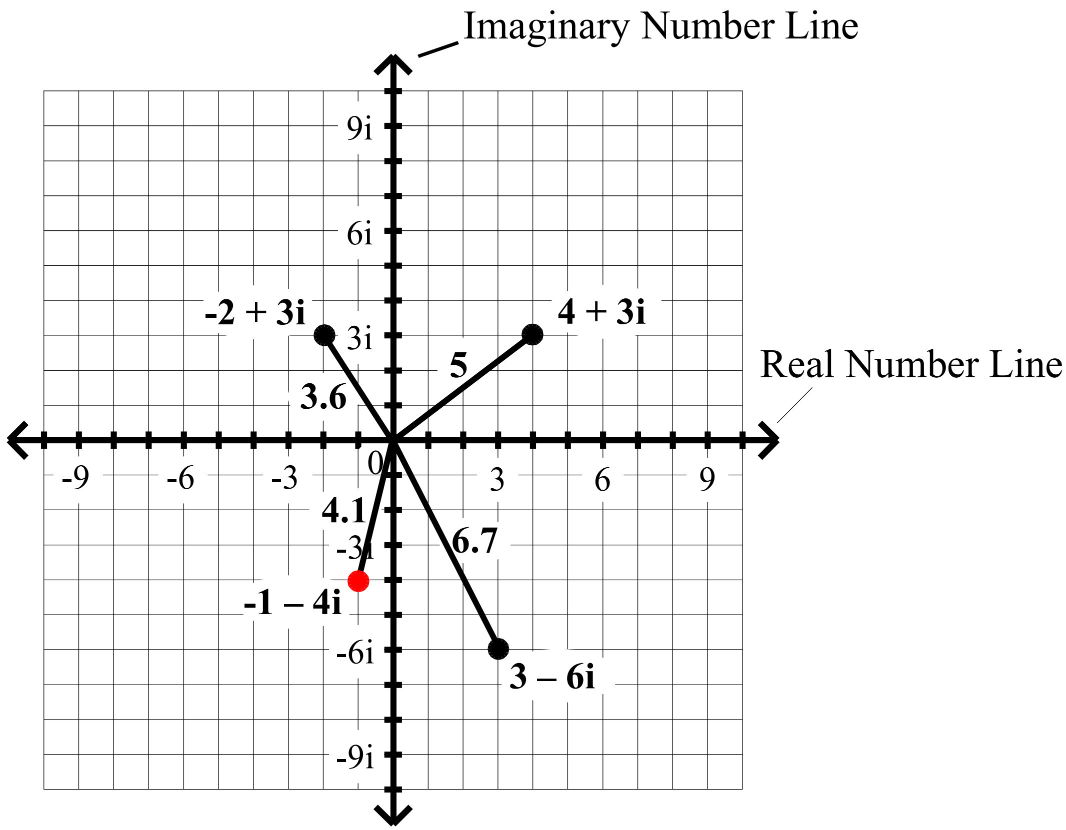

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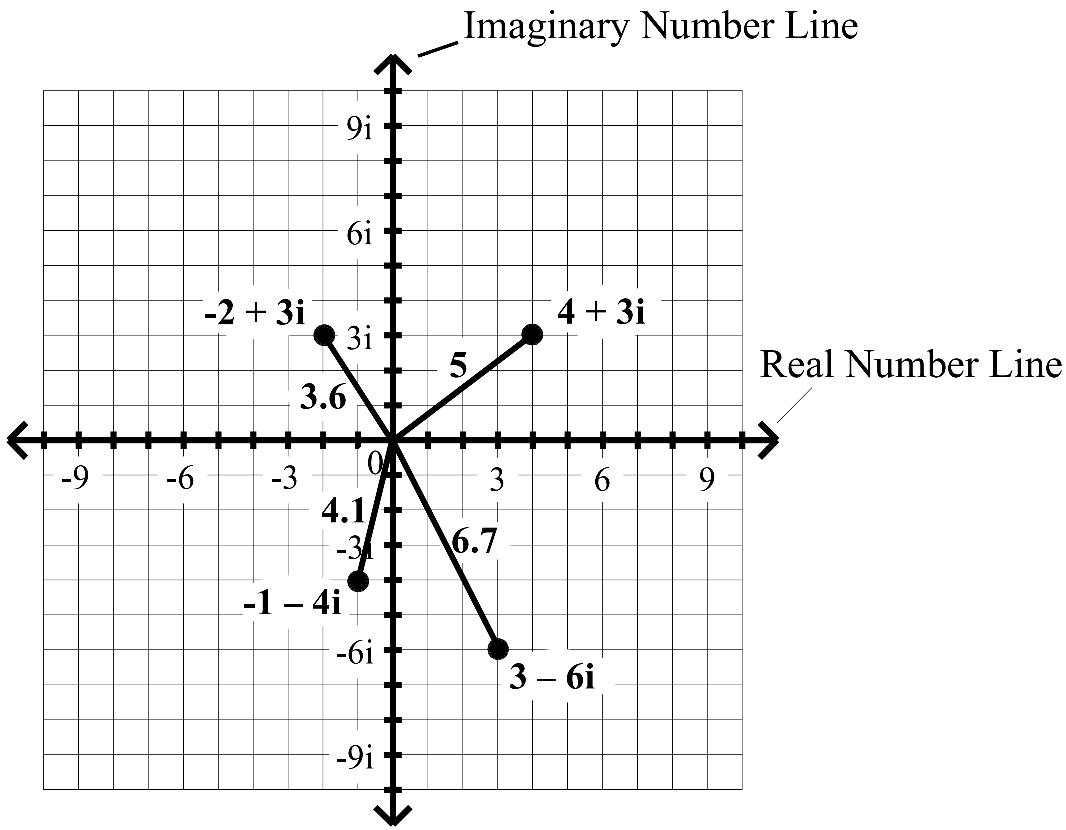

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Algebra II   Class Worksheet #4   Unit 5

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11. $|-4i| =$ ________

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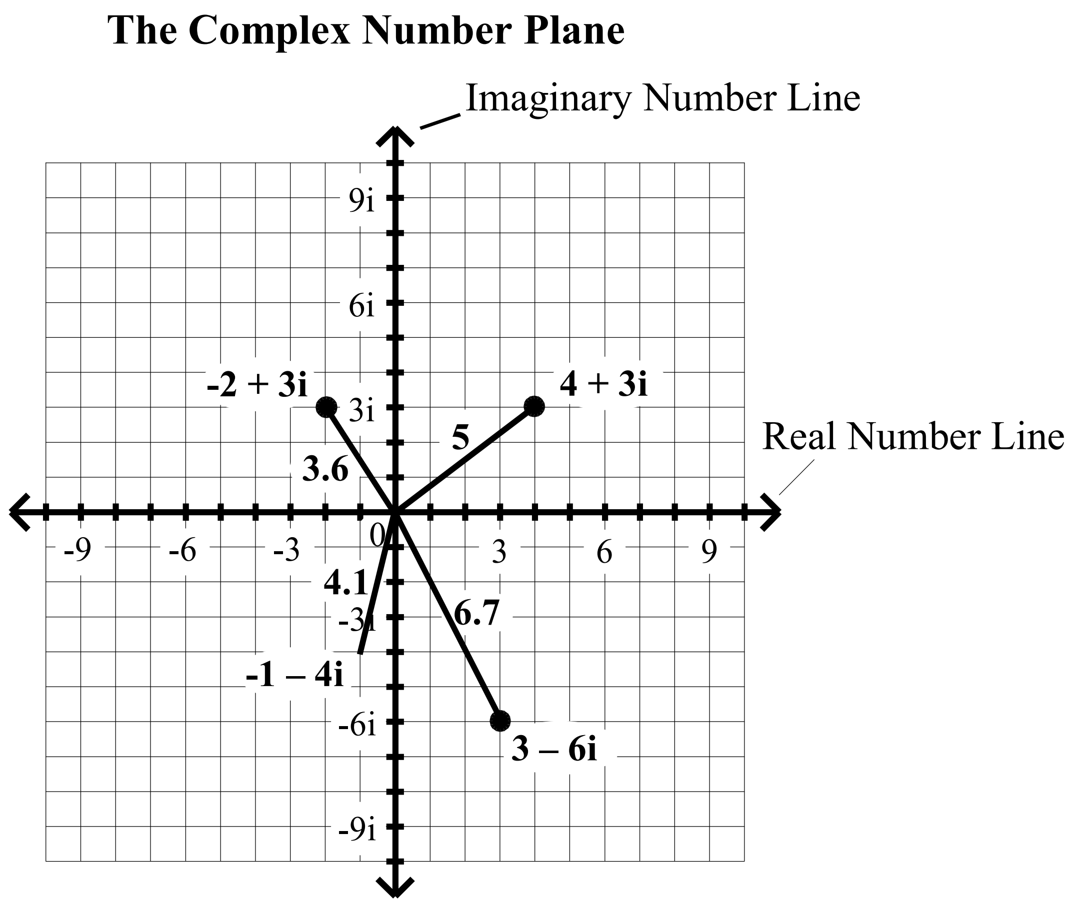

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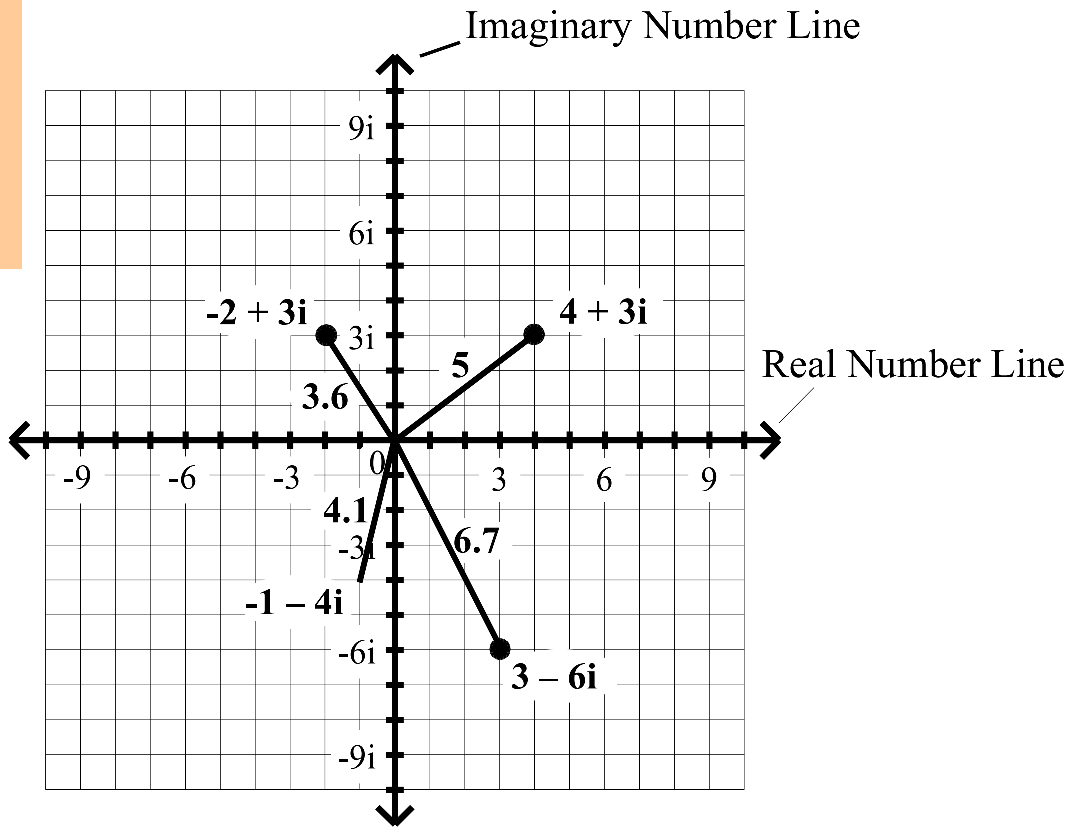

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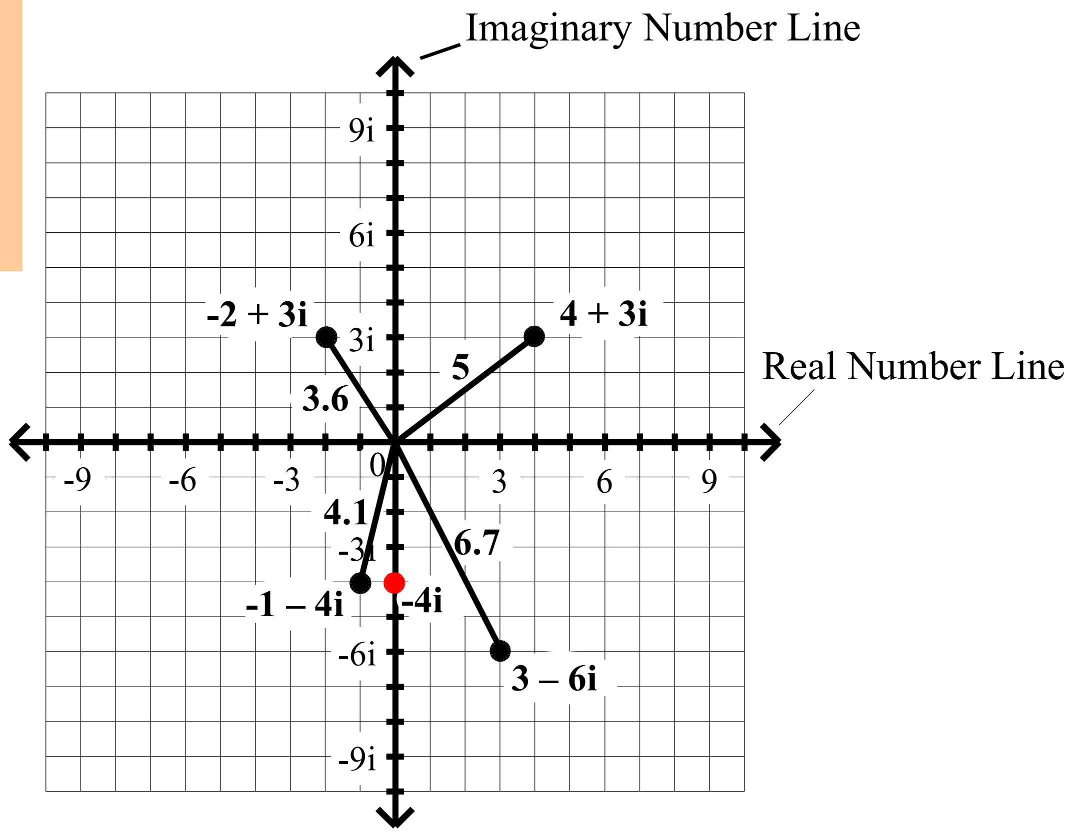

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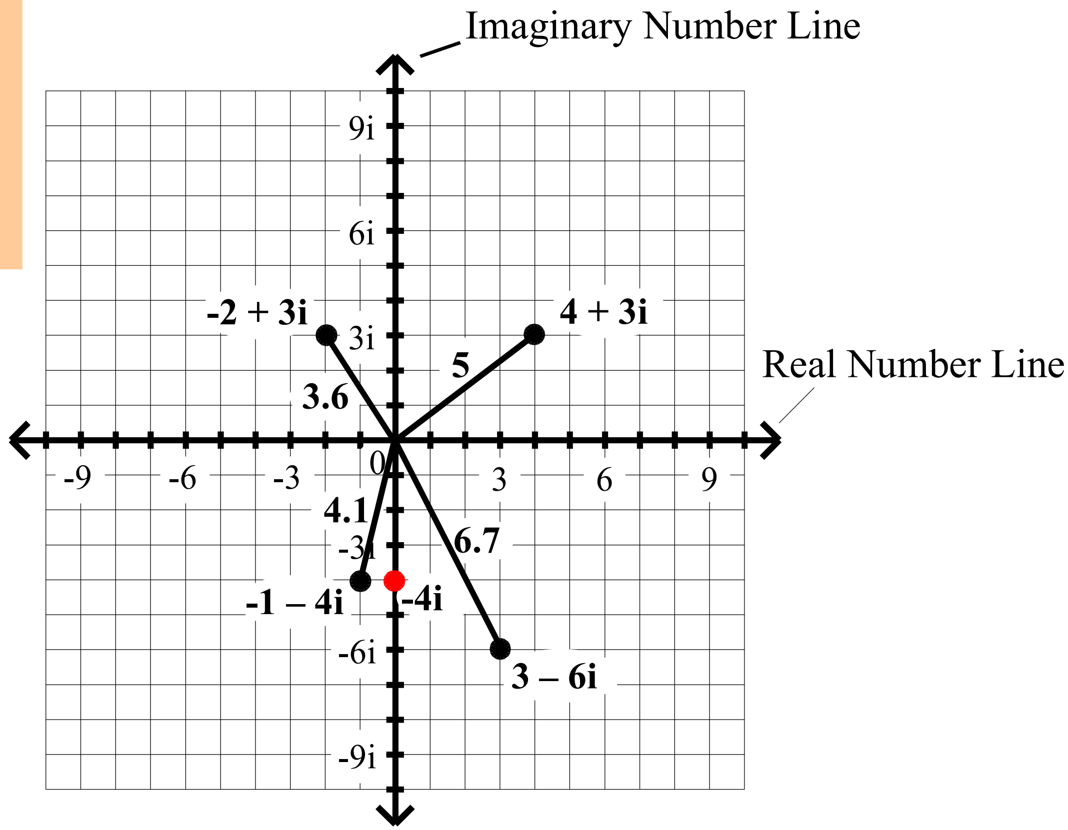

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Clearly, the distance from -4i to zero

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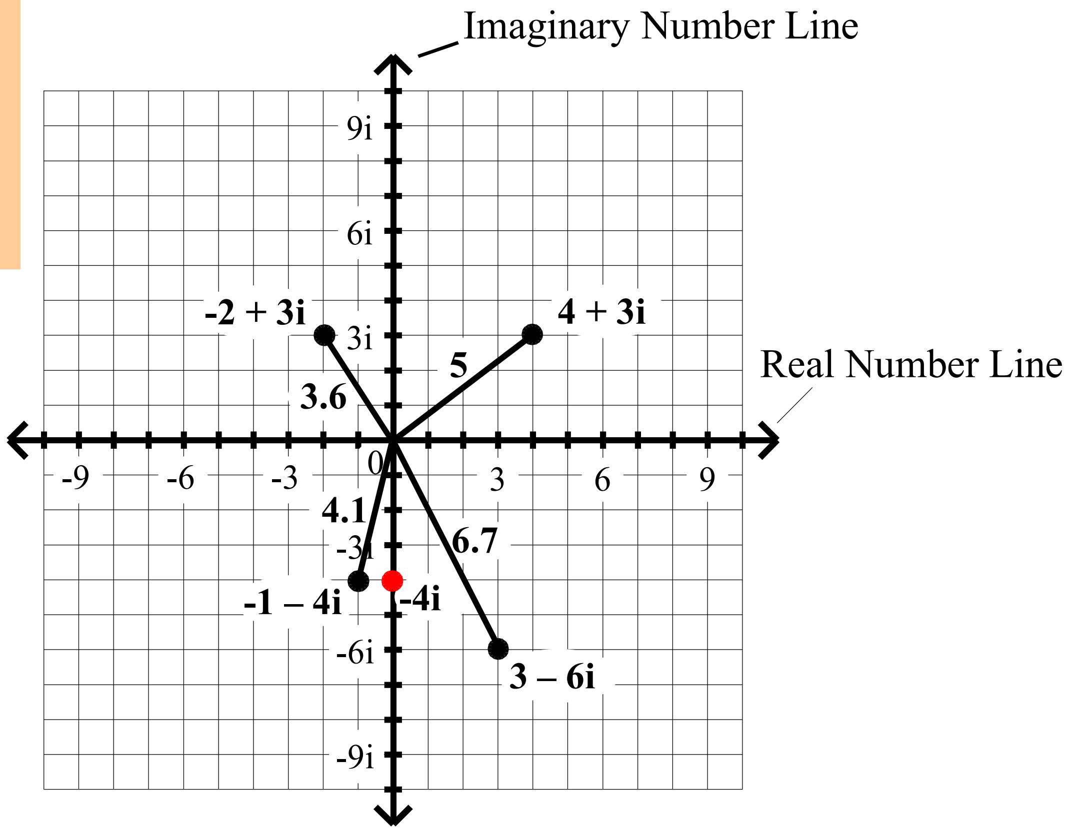

The Absolute Value of Complex Numbers

$$|a + bi| = \sqrt{a^2 + b^2}$$

Clearly, the distance from -4i to zero is 4 units.

Algebra II Class Worksheet #4 Unit 5

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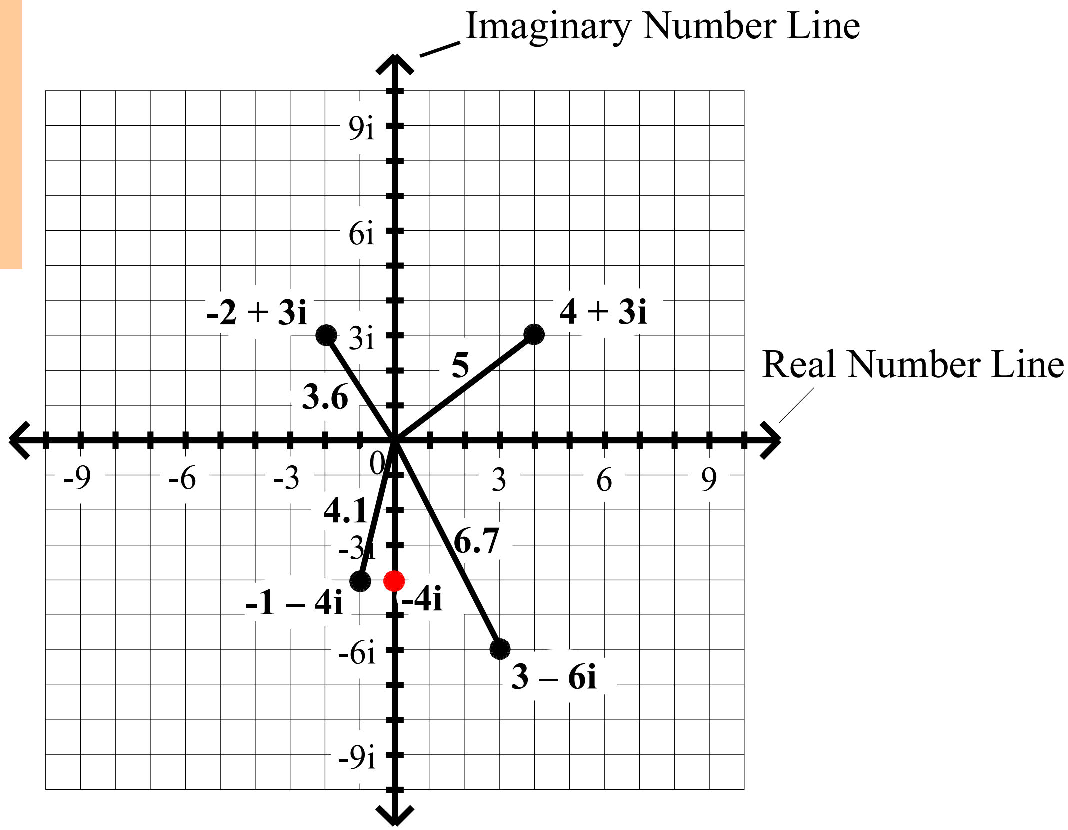

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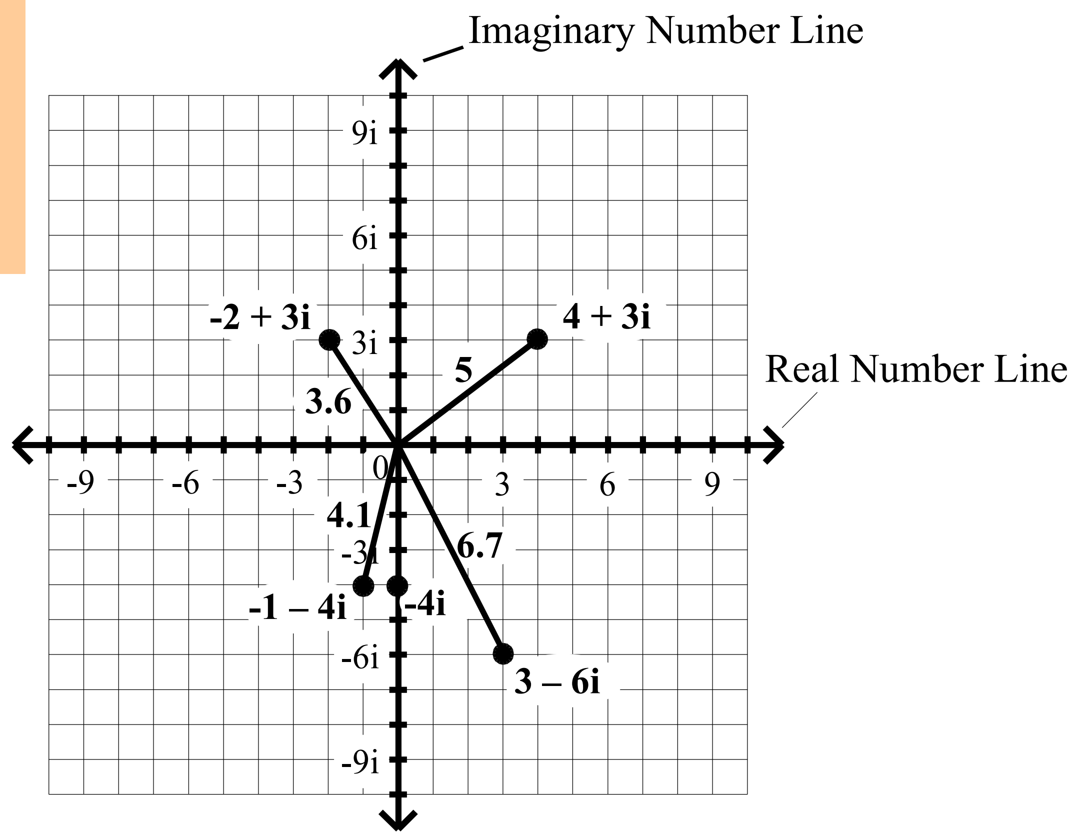

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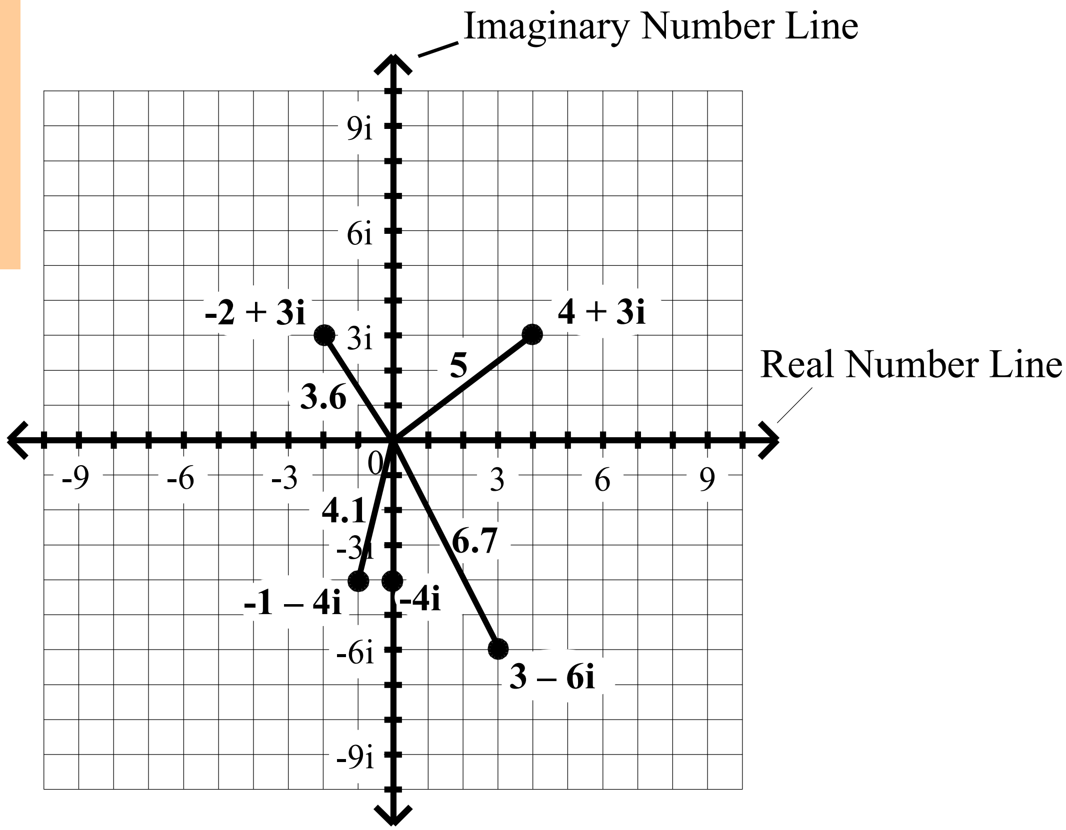

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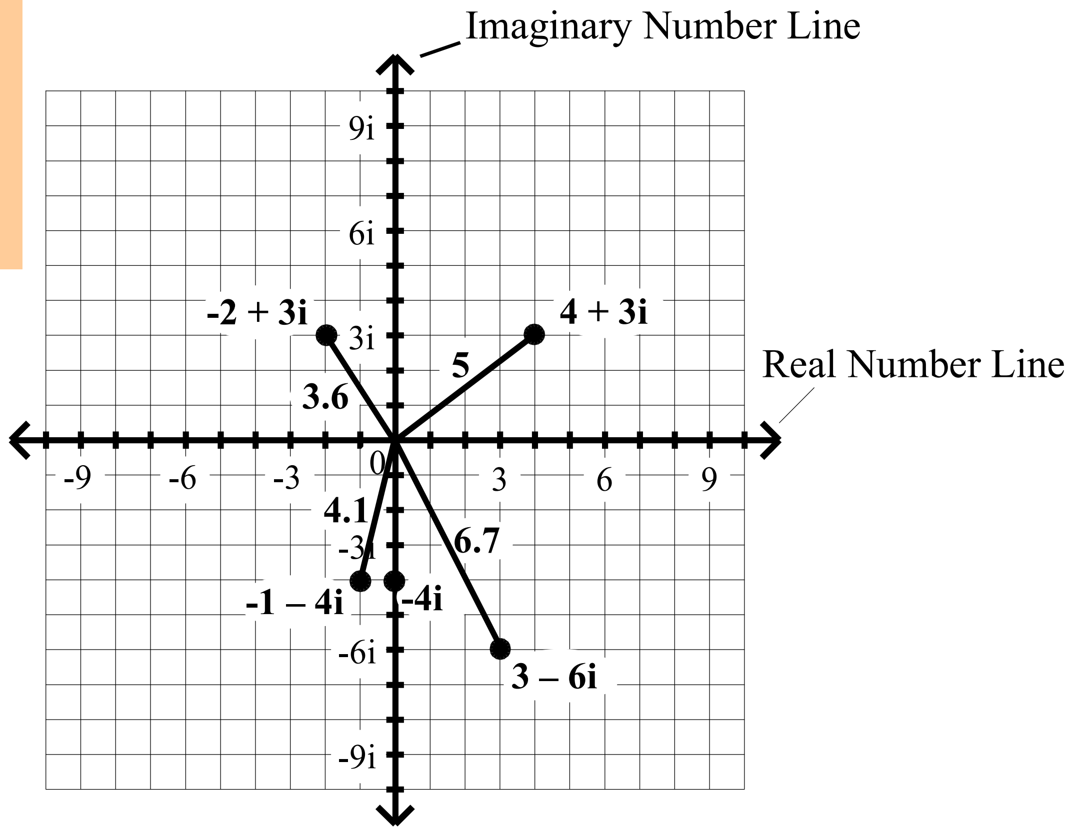

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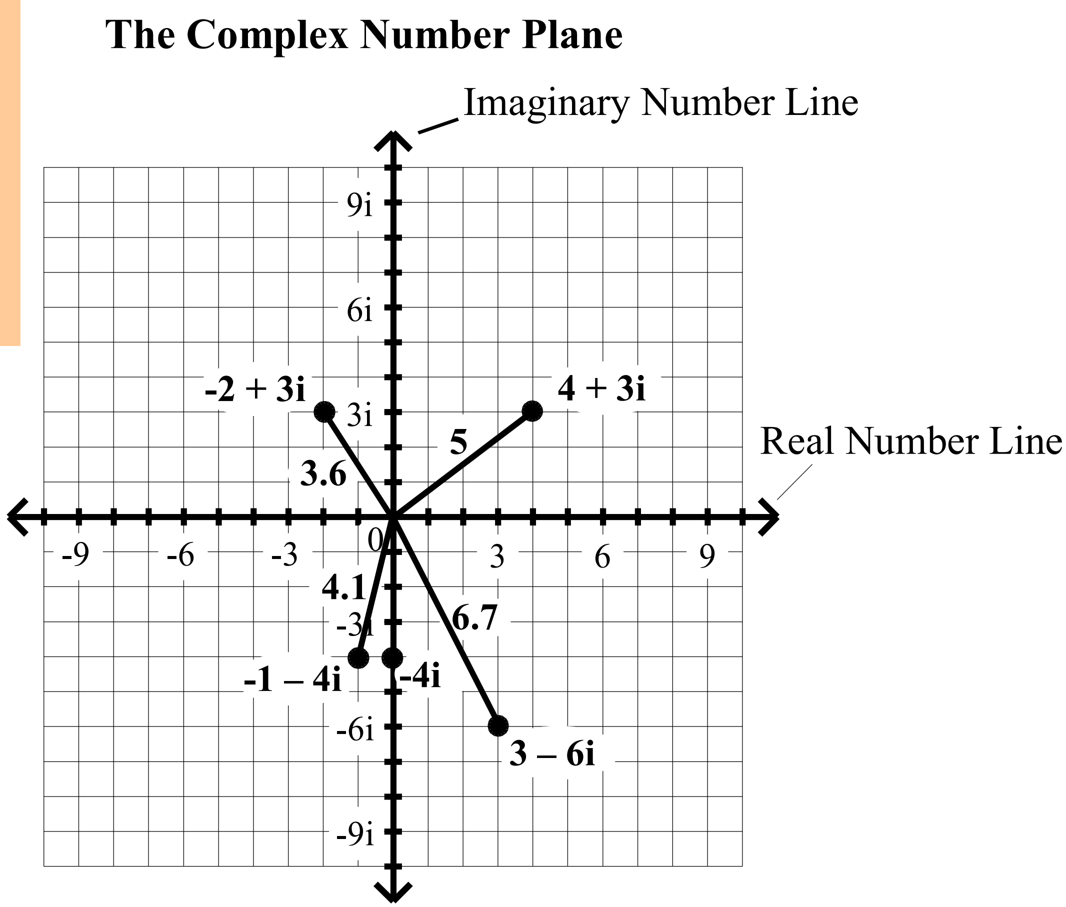

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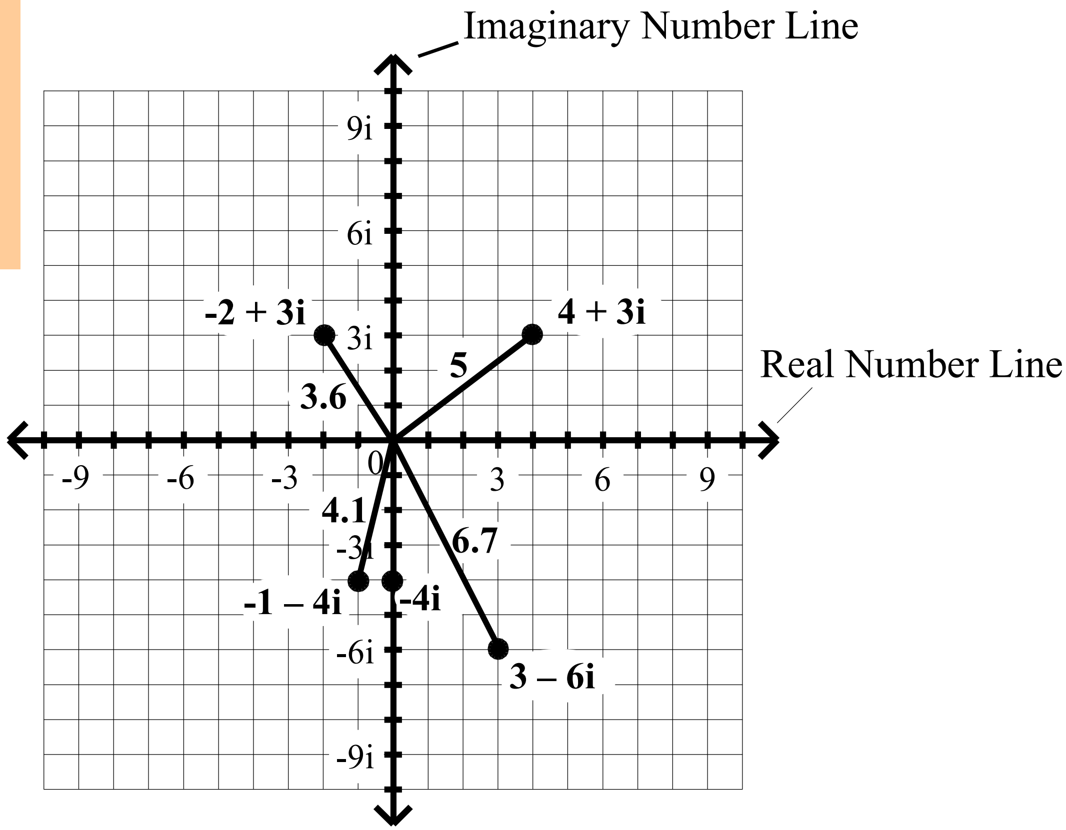

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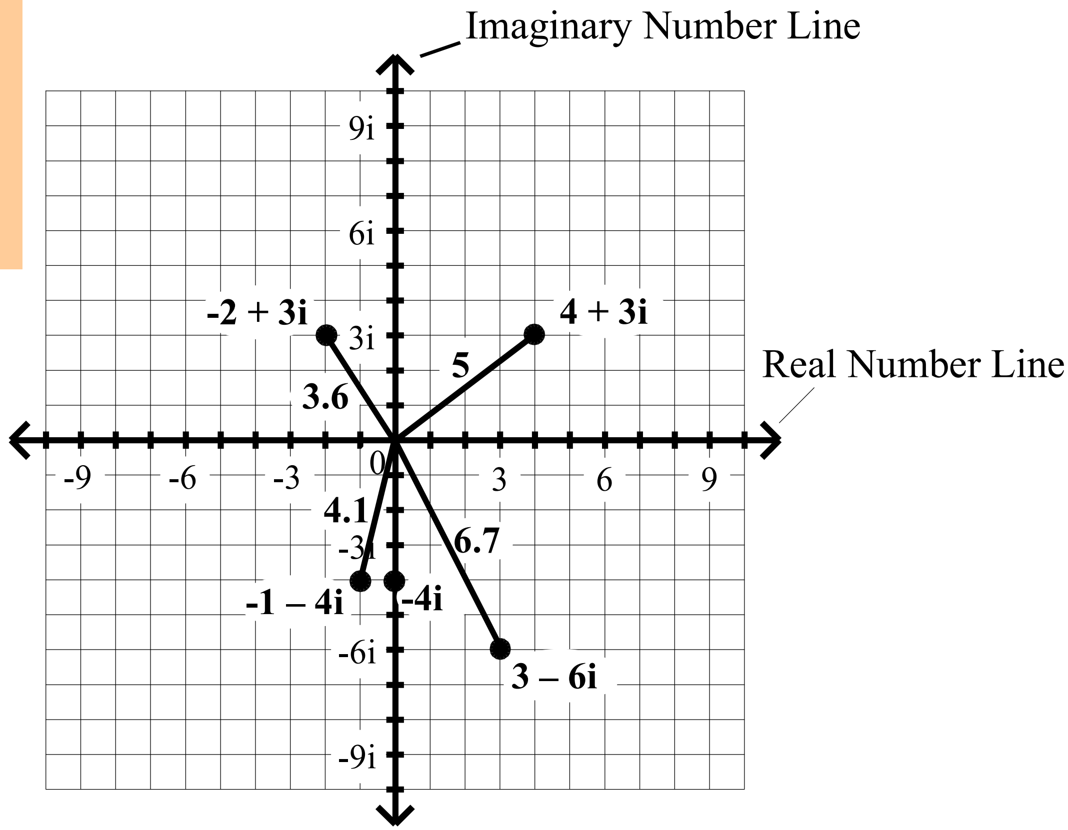

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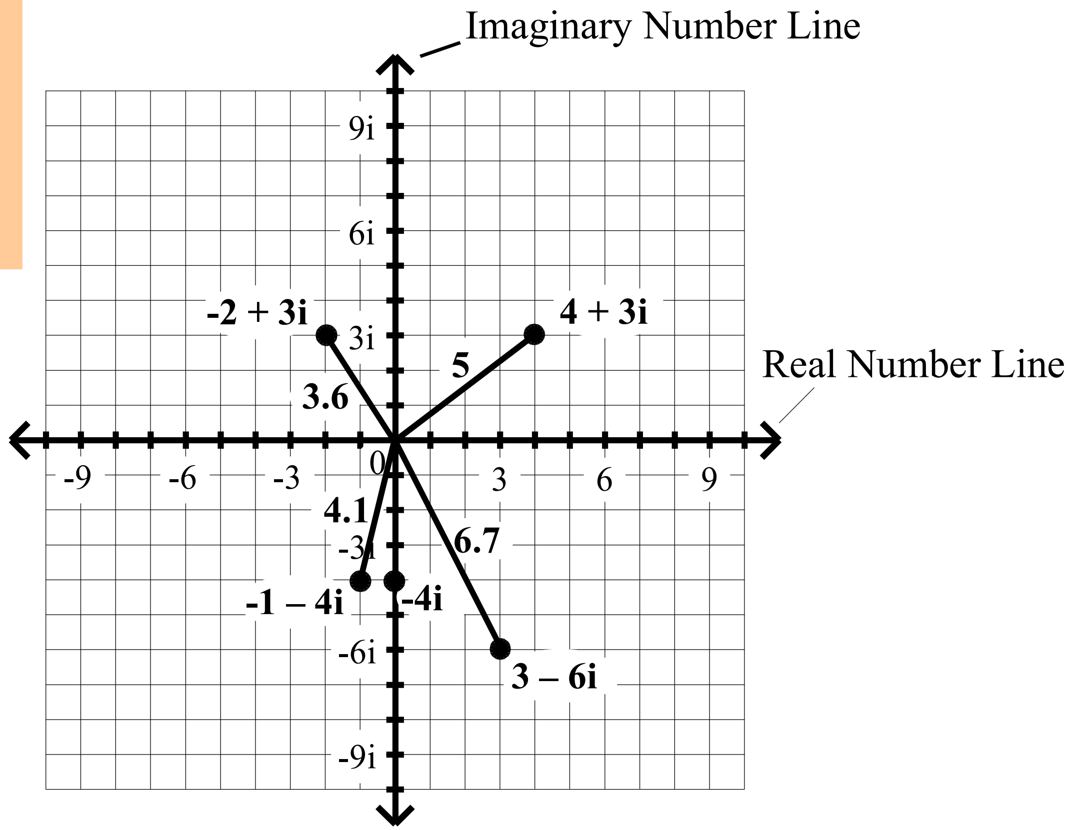

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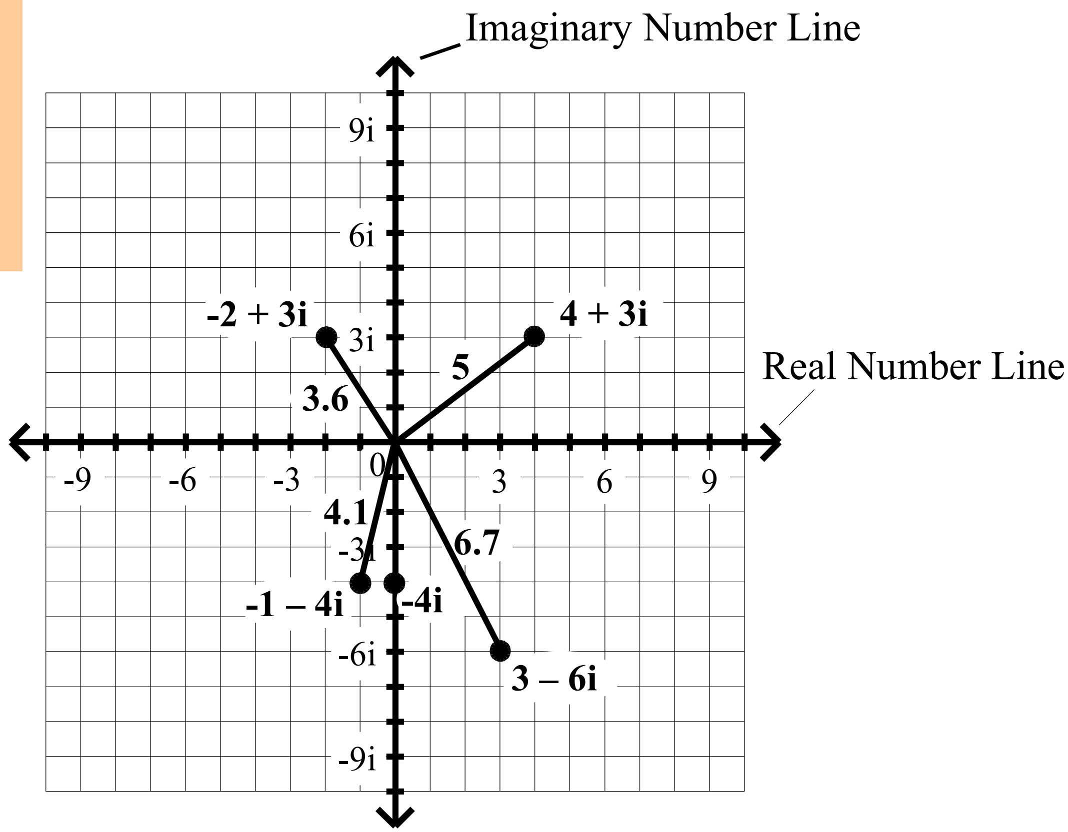

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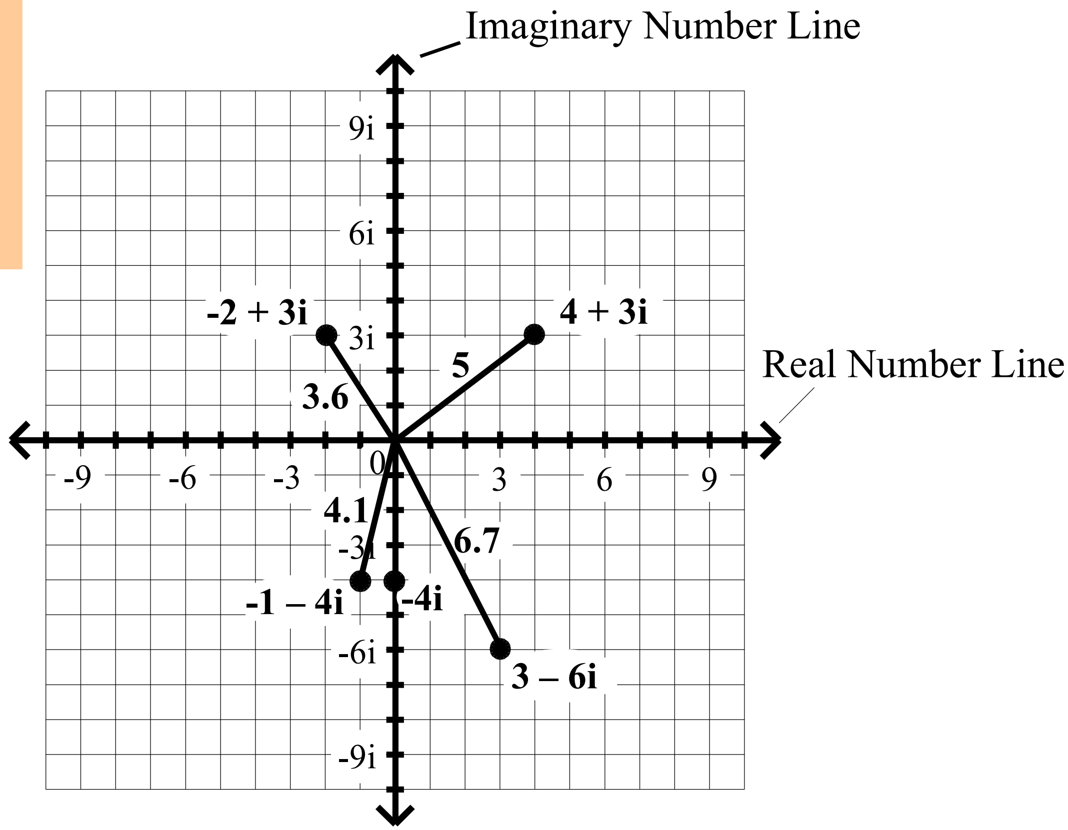

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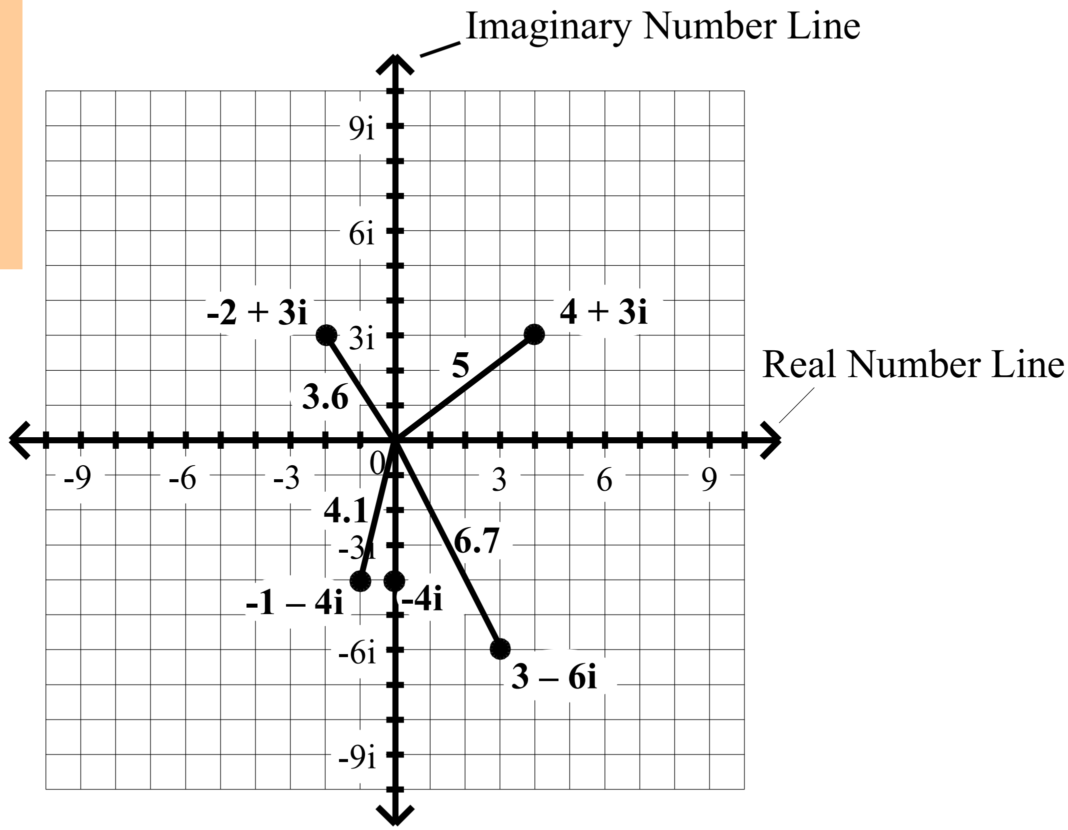

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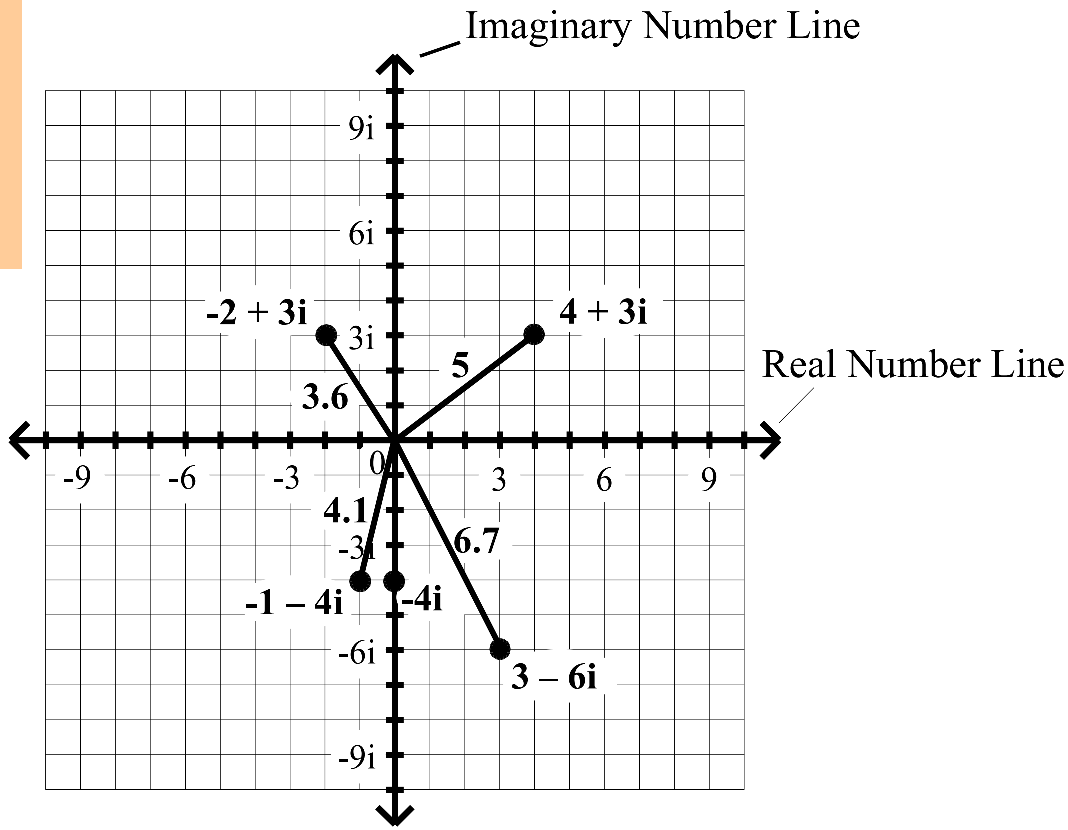

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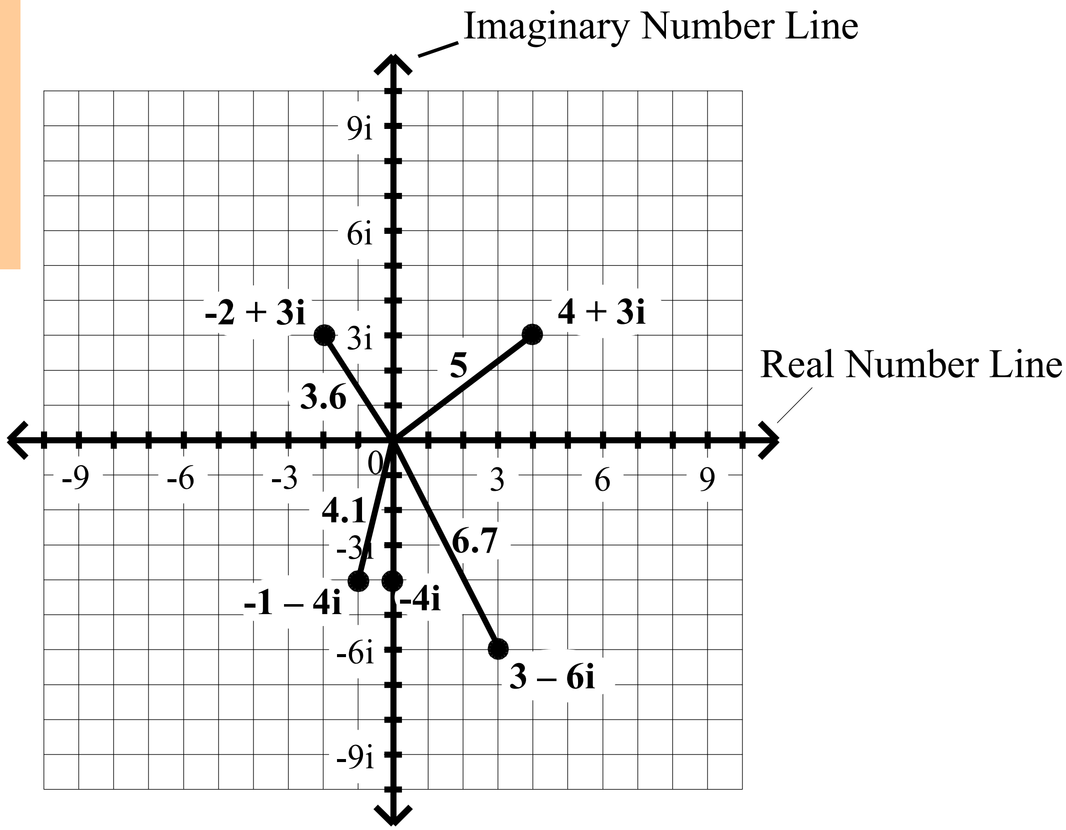

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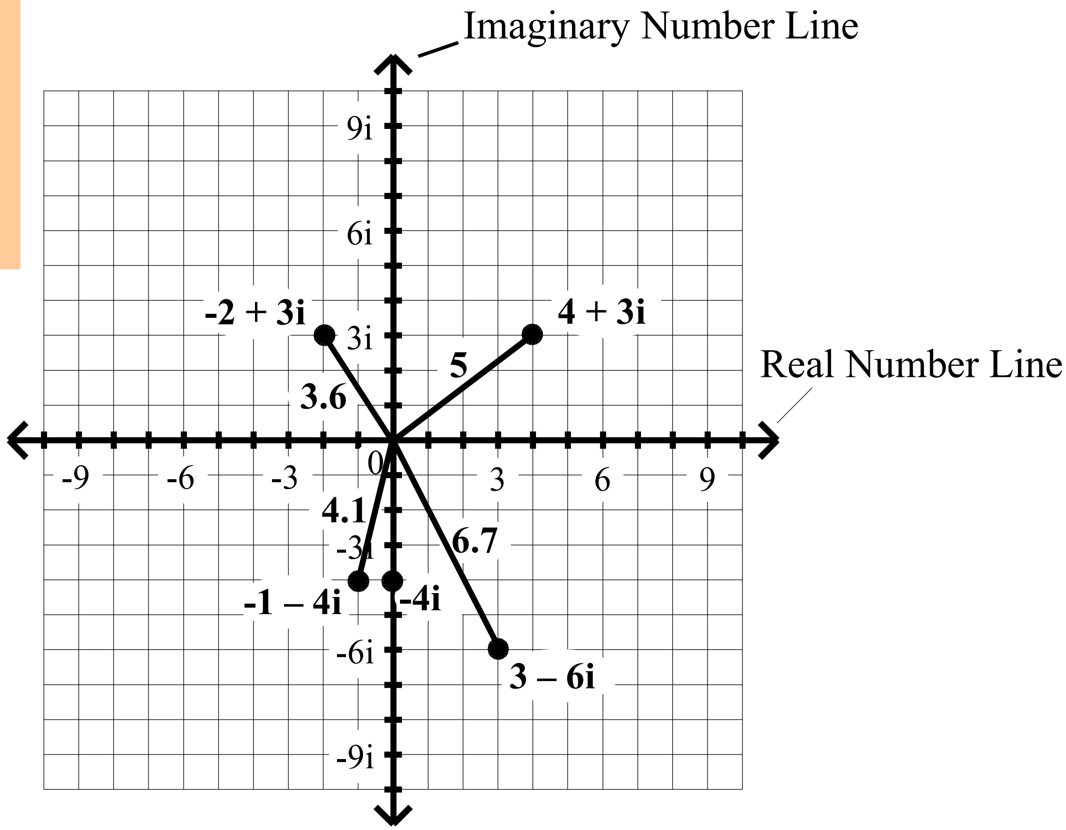

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Algebra II Class Worksheet #4 Unit 5

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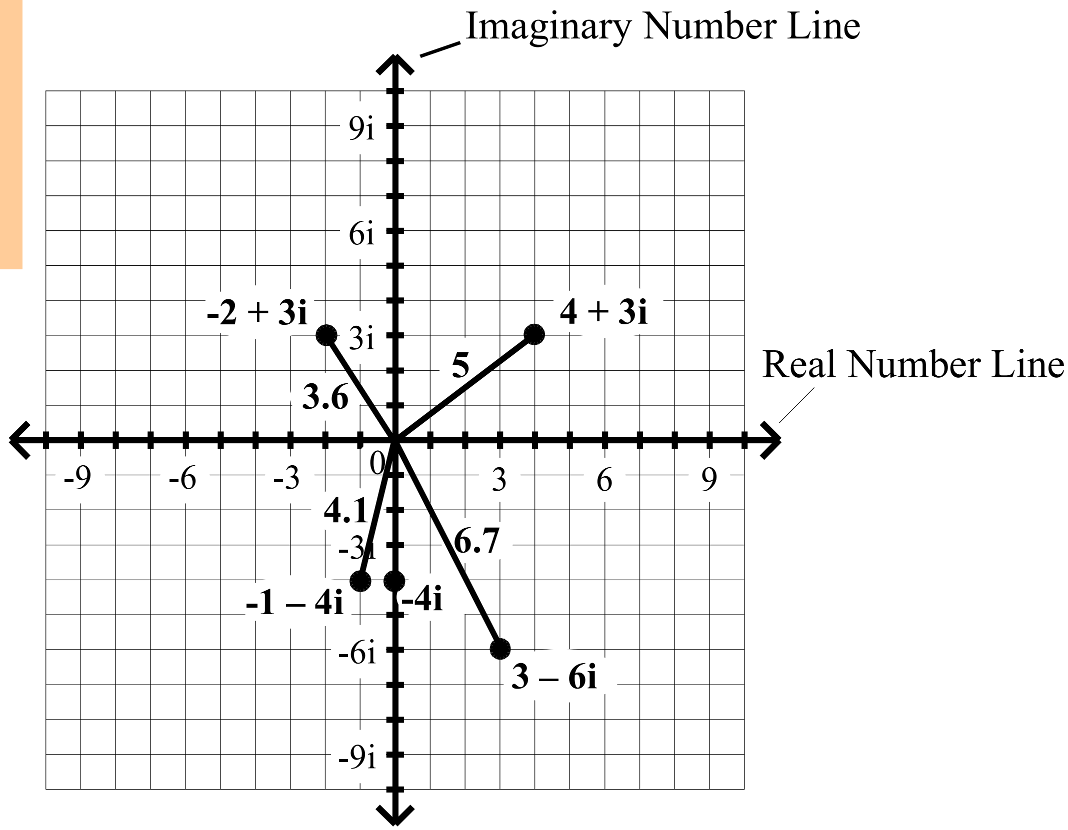

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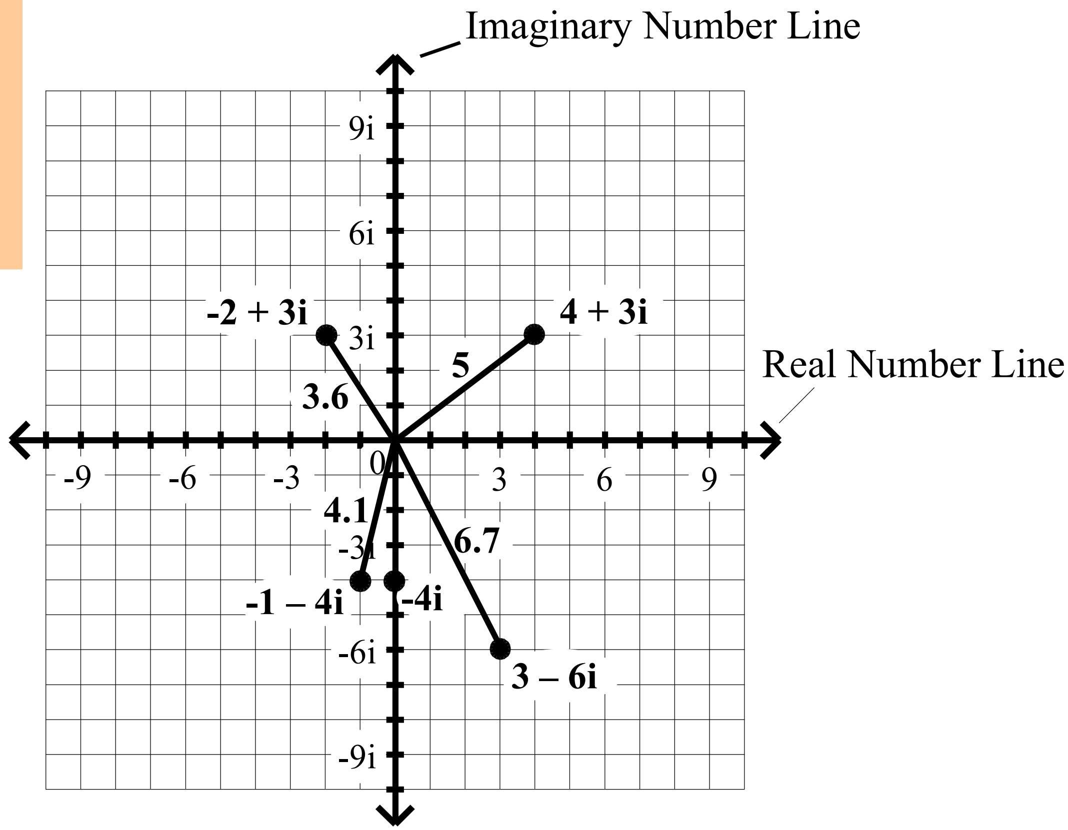

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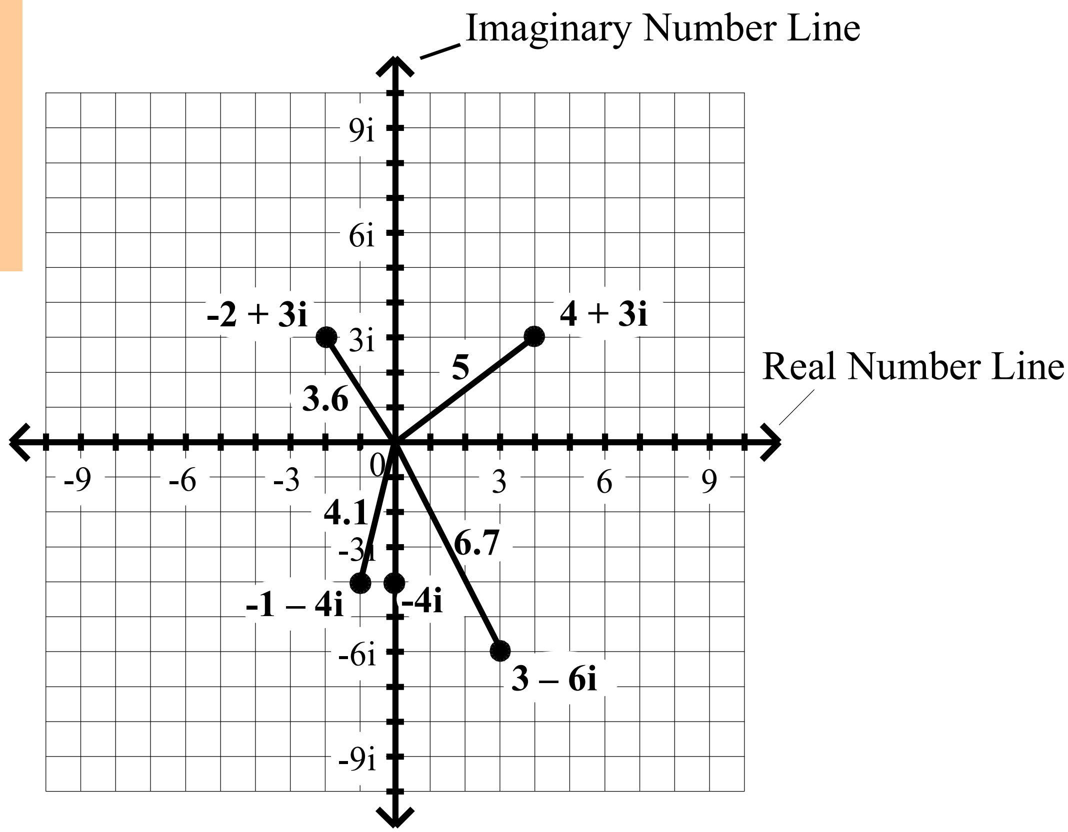

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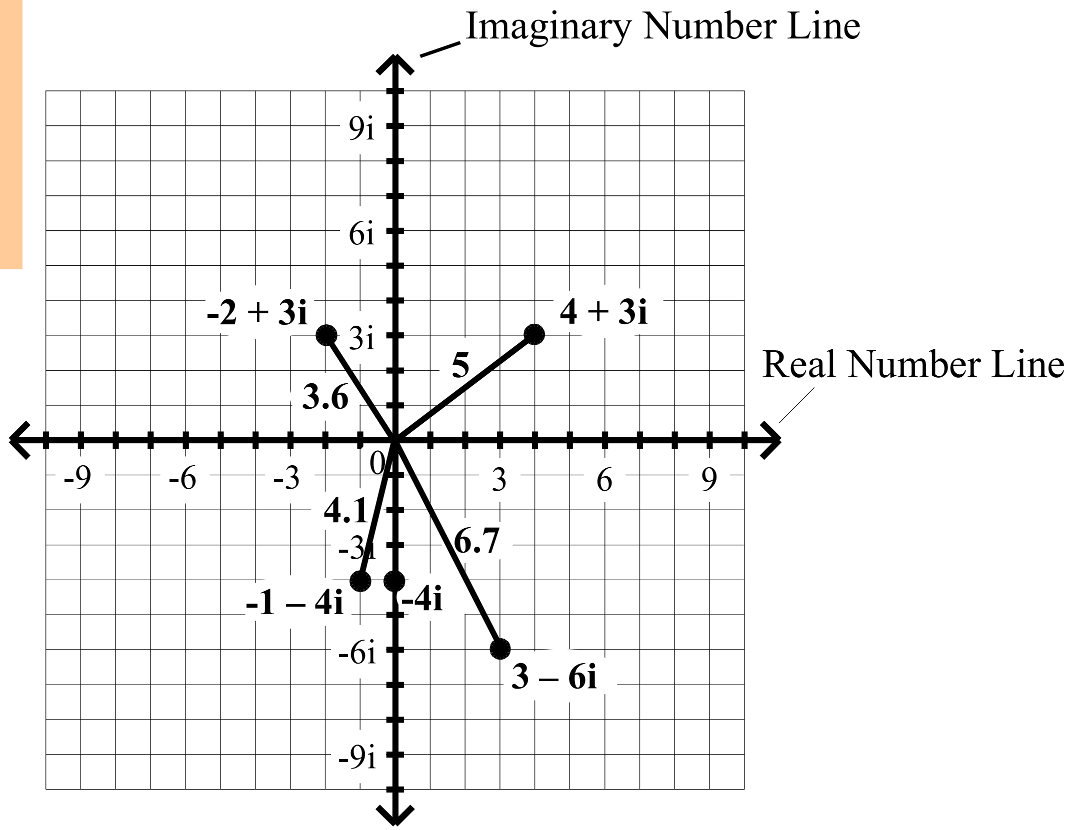

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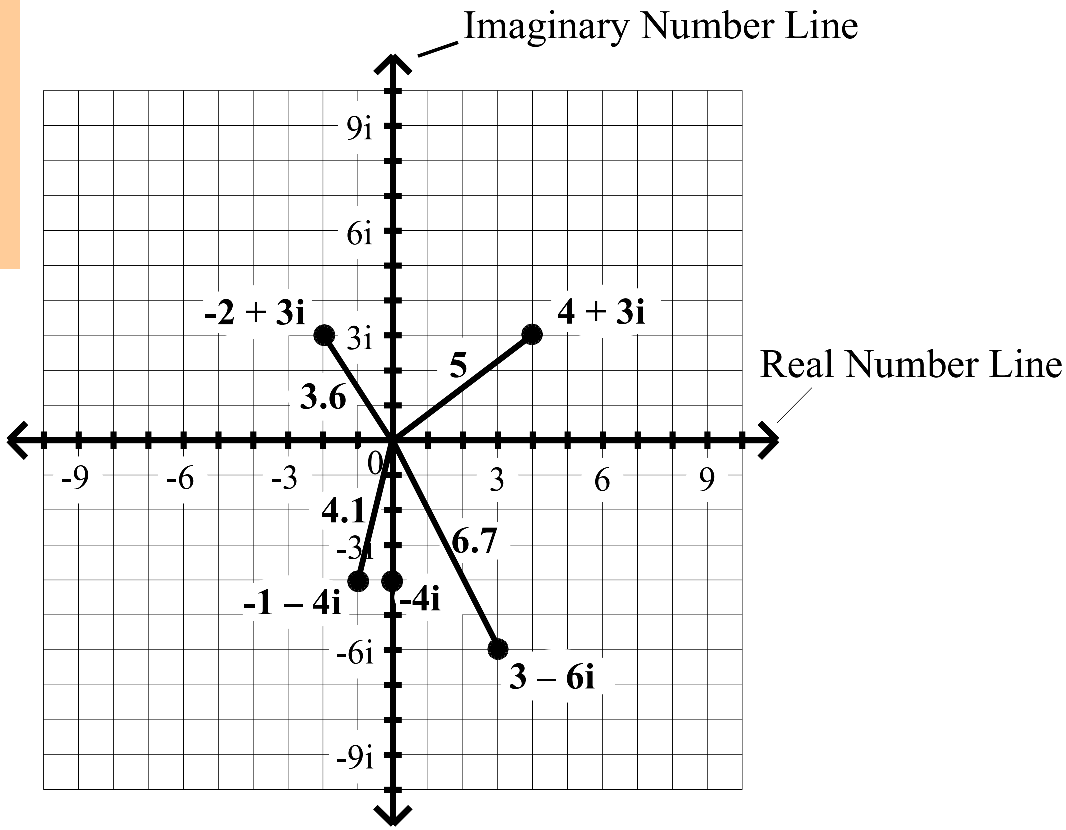

The Absolute Value of Complex Numbers

$|a + bi| = \sqrt{a^2 + b^2}$

Of course, you don't need to use the formula to find the absolute value of any imaginary number.

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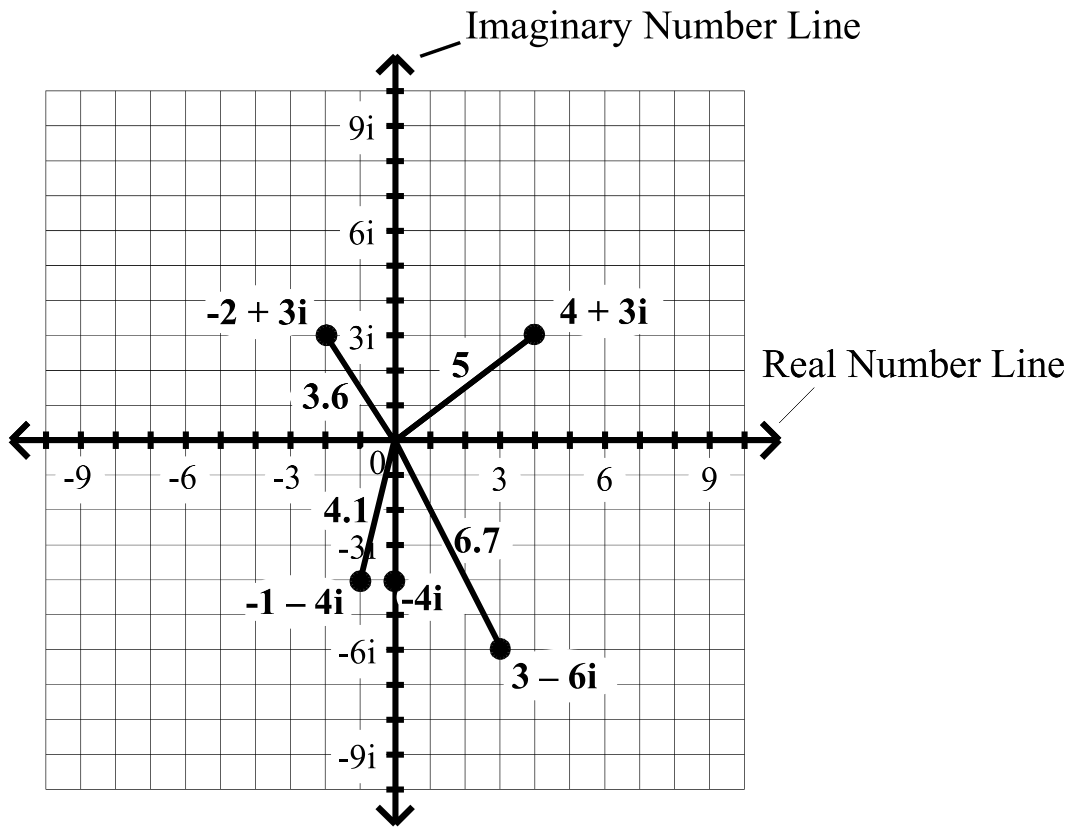

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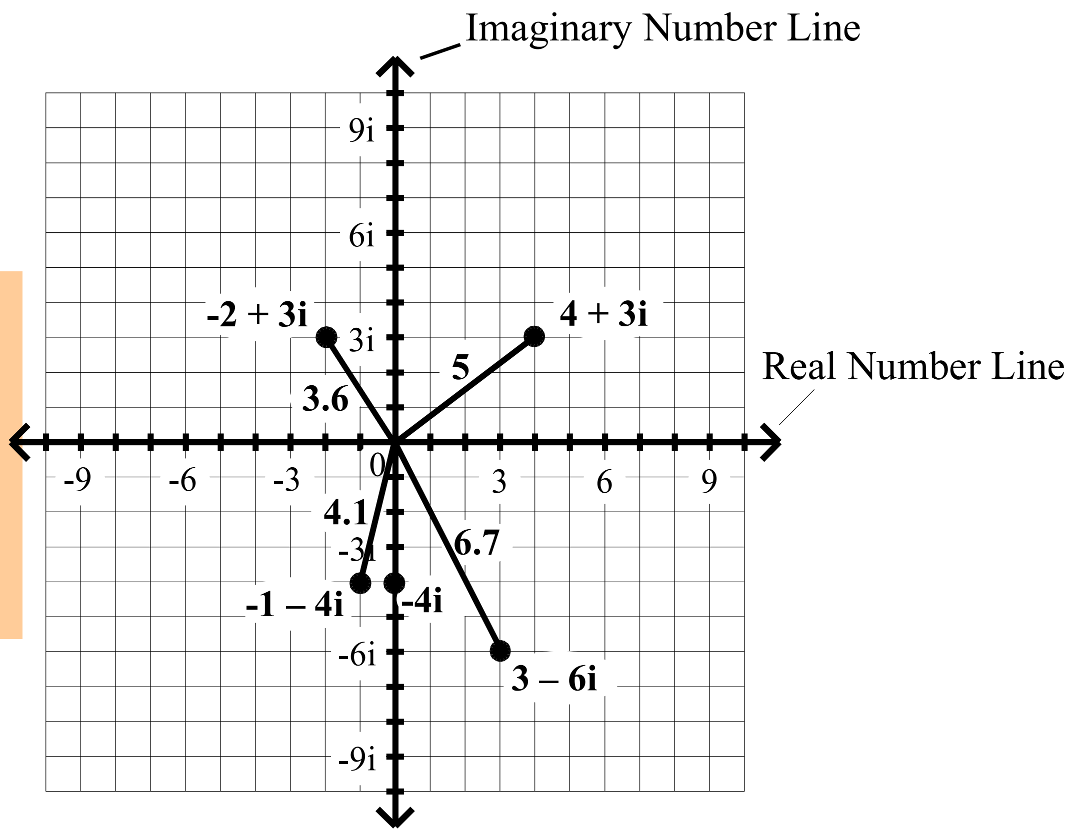

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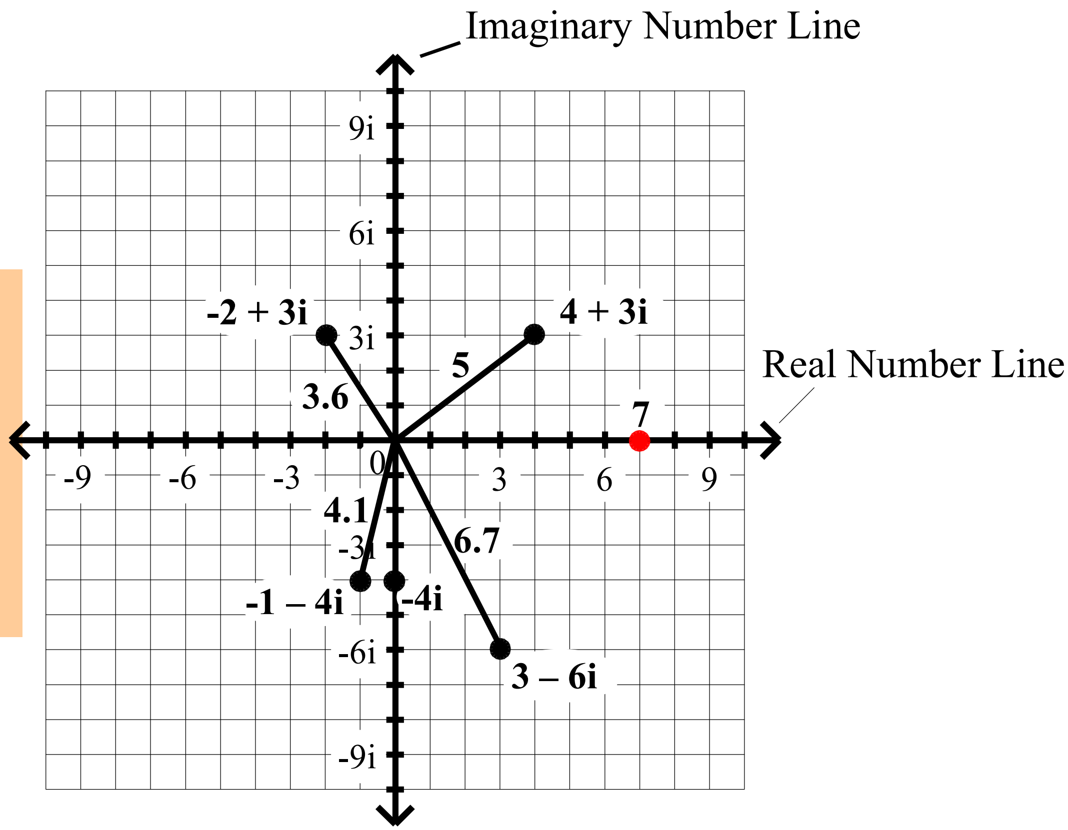

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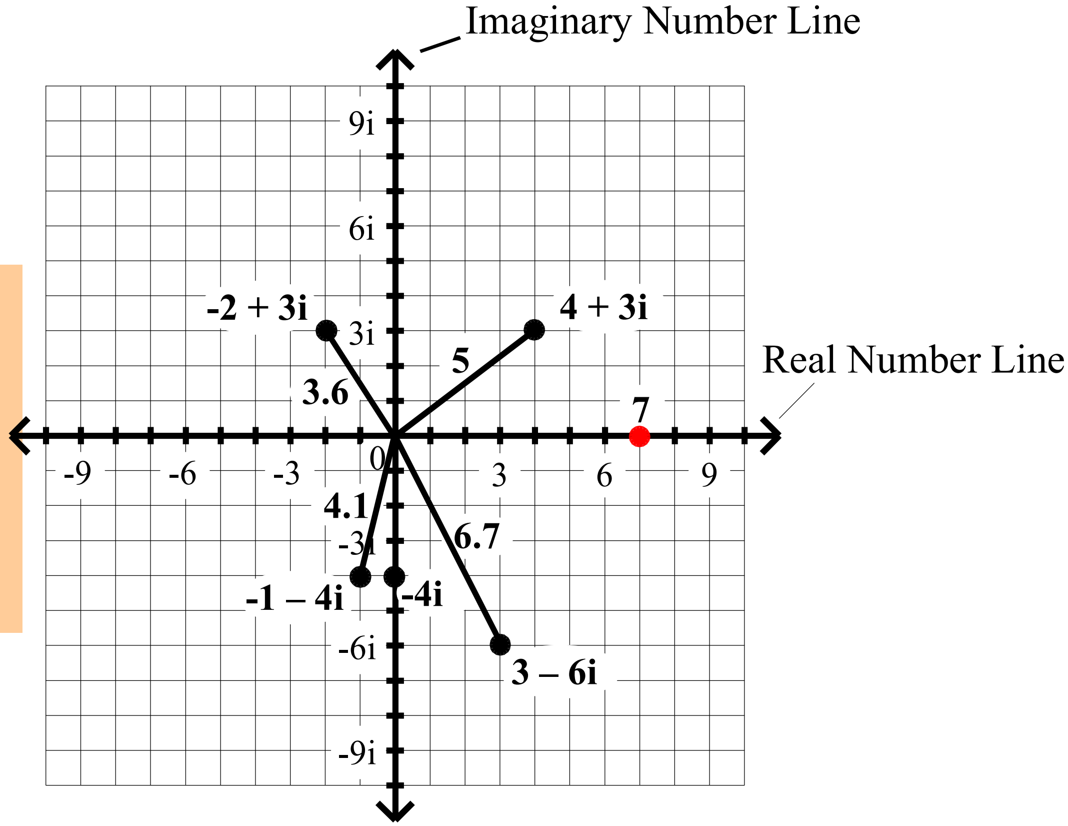

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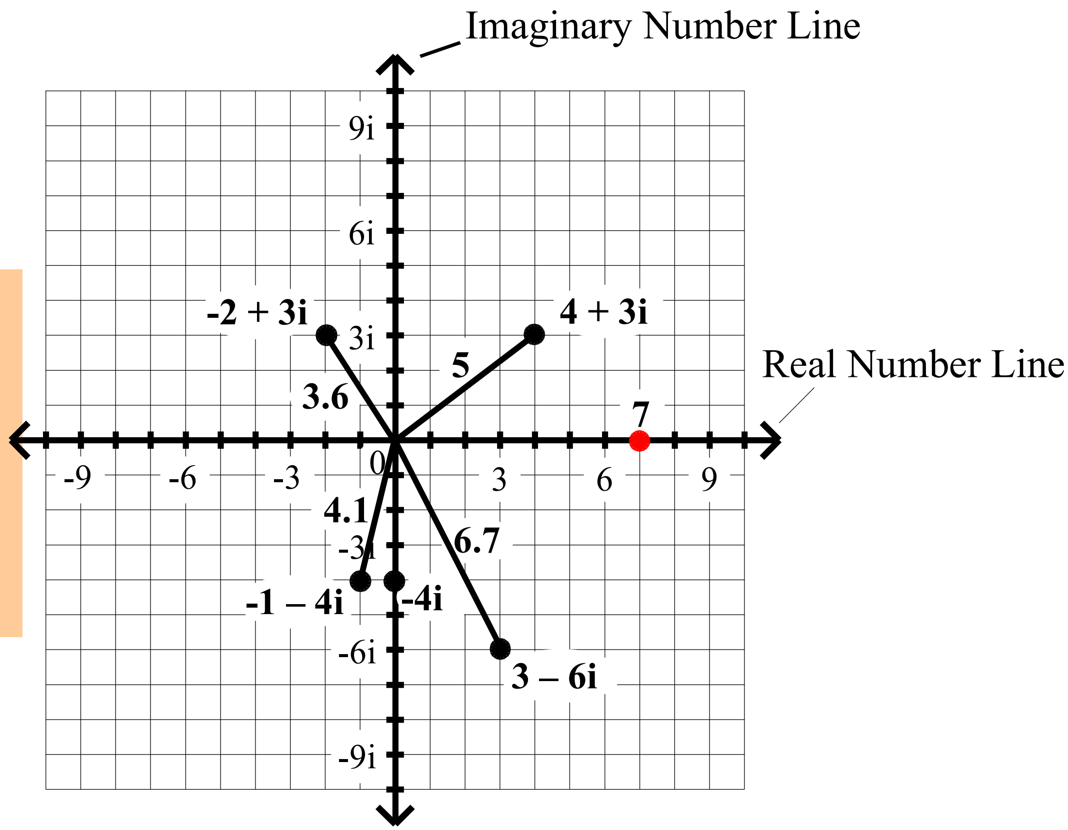

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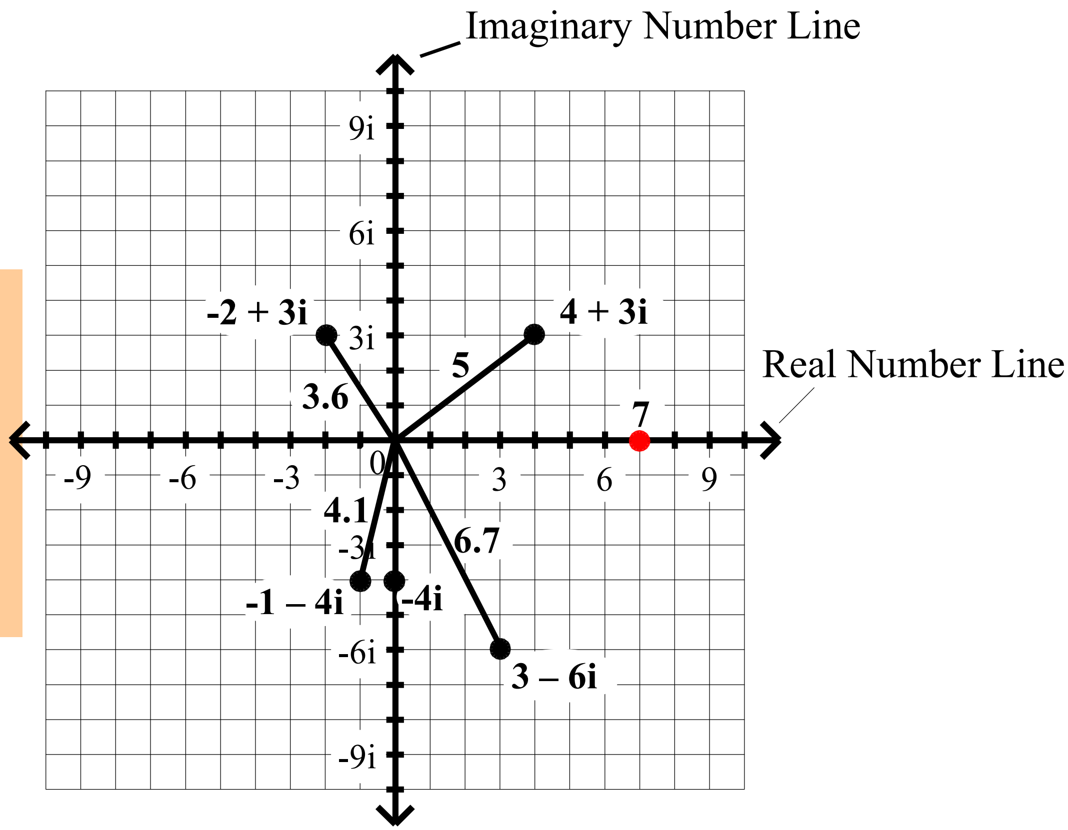

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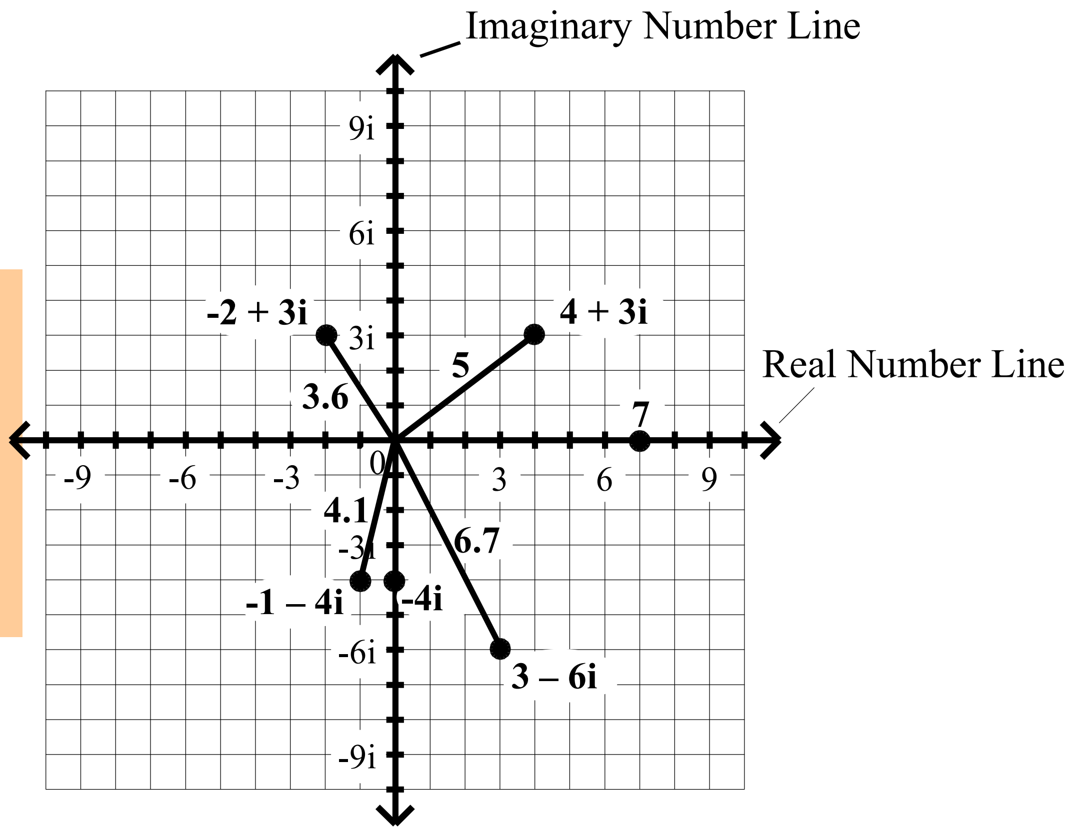

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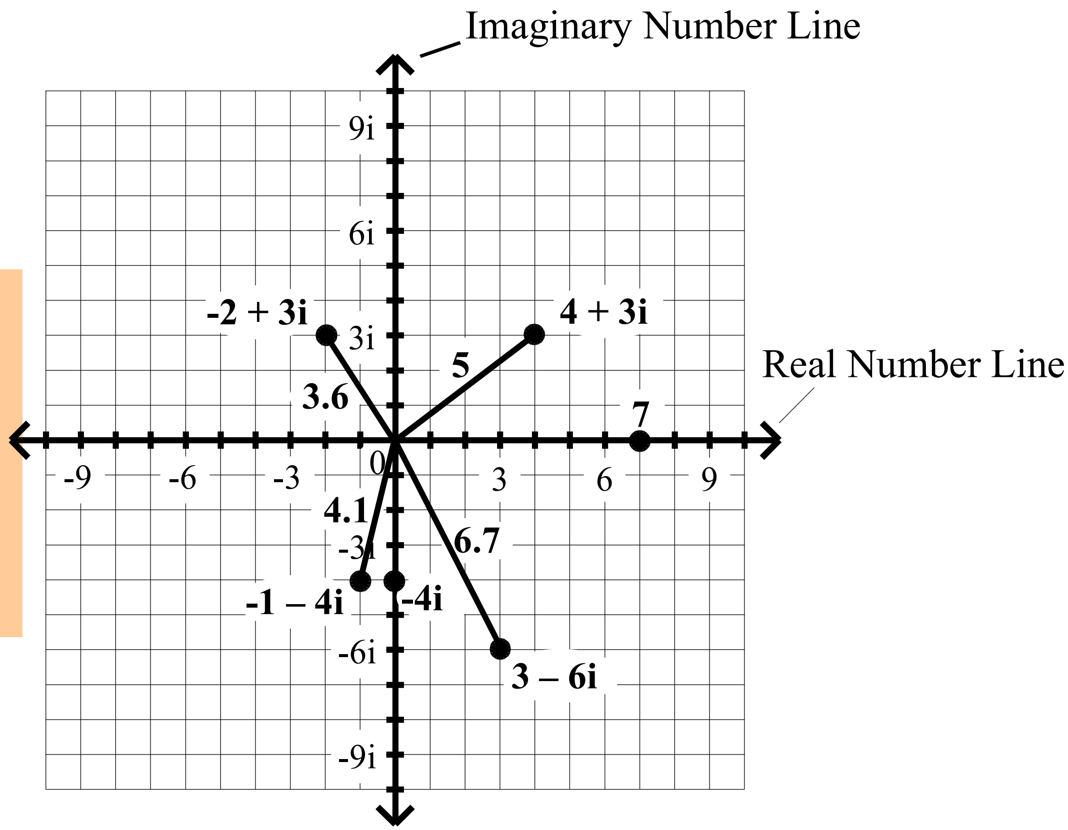

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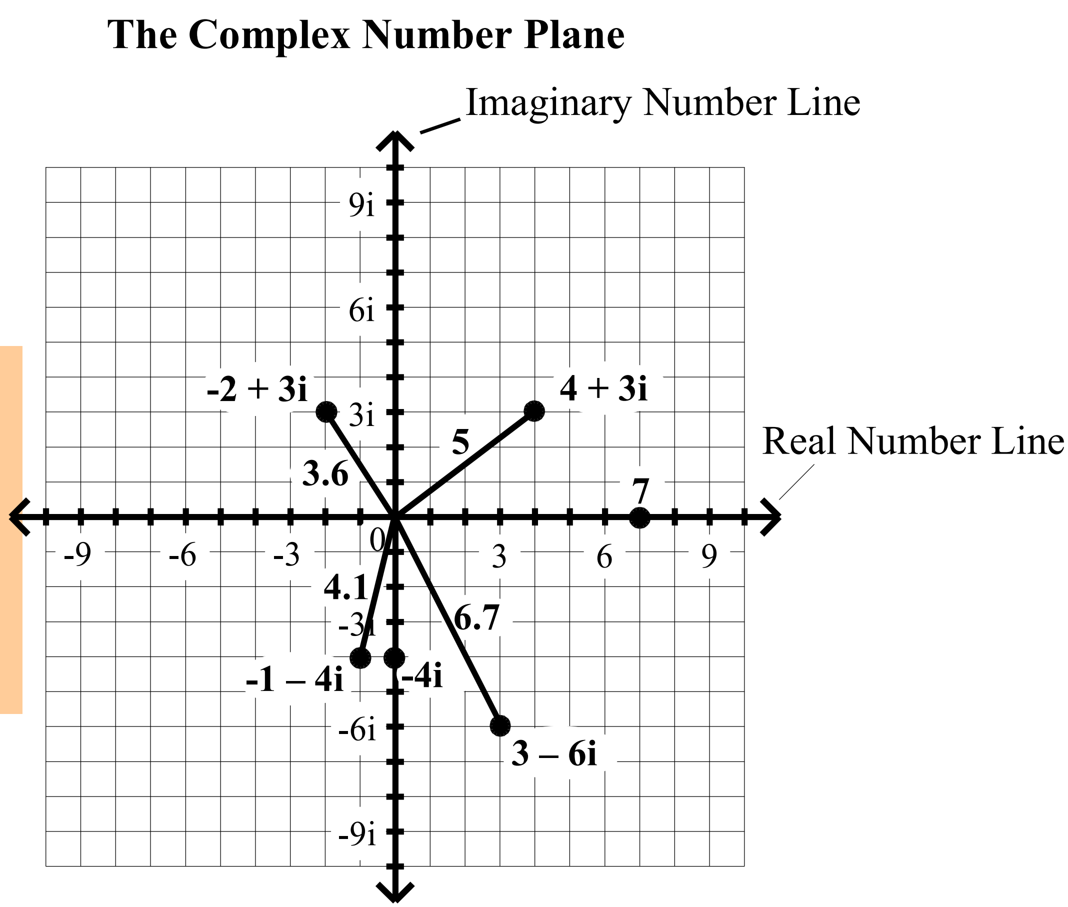

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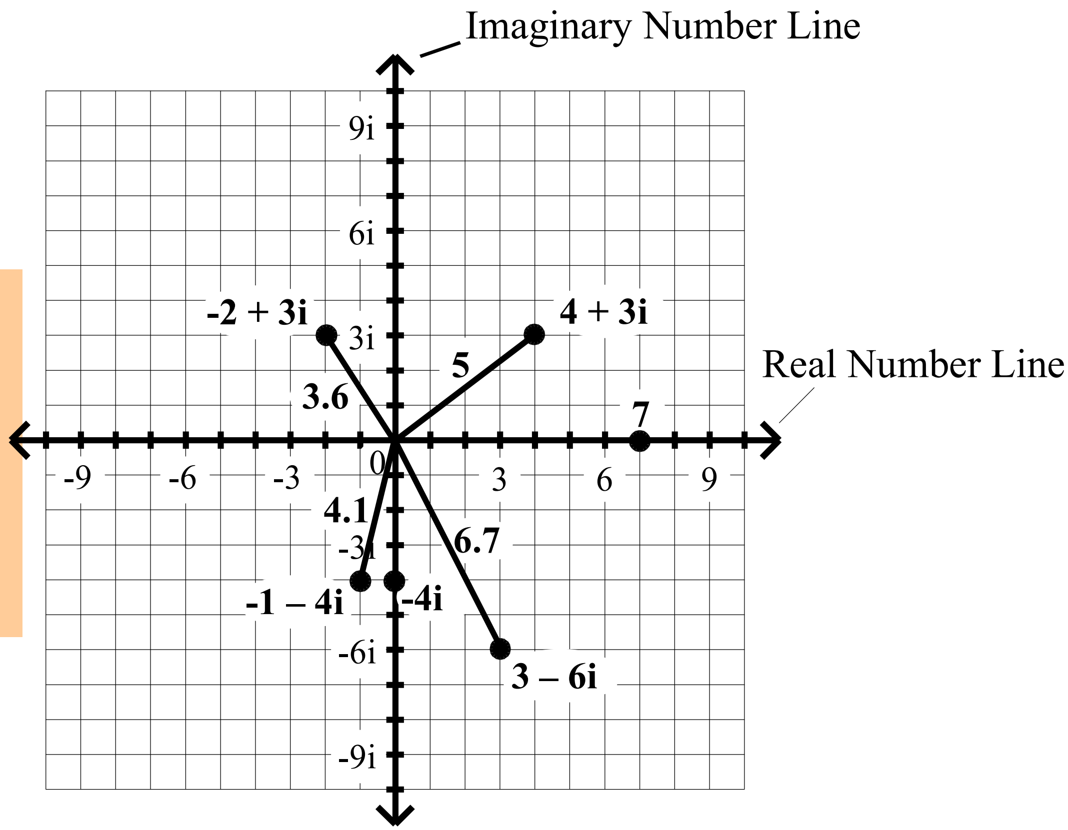

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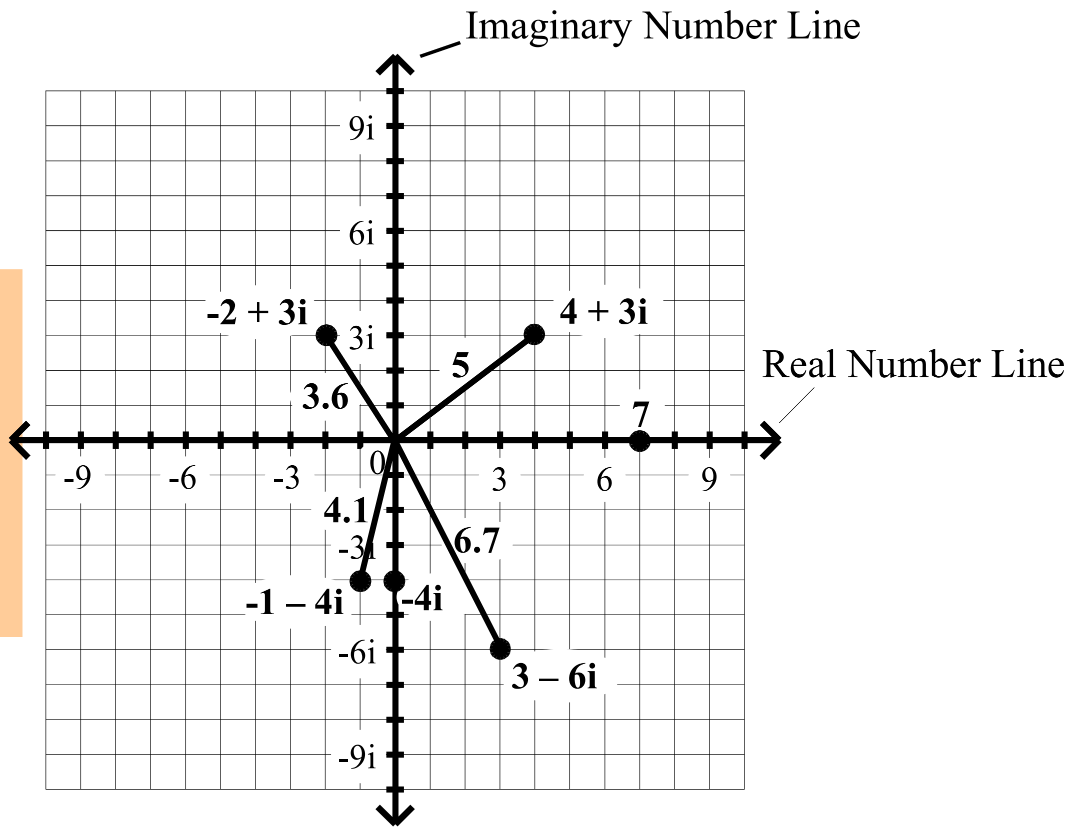

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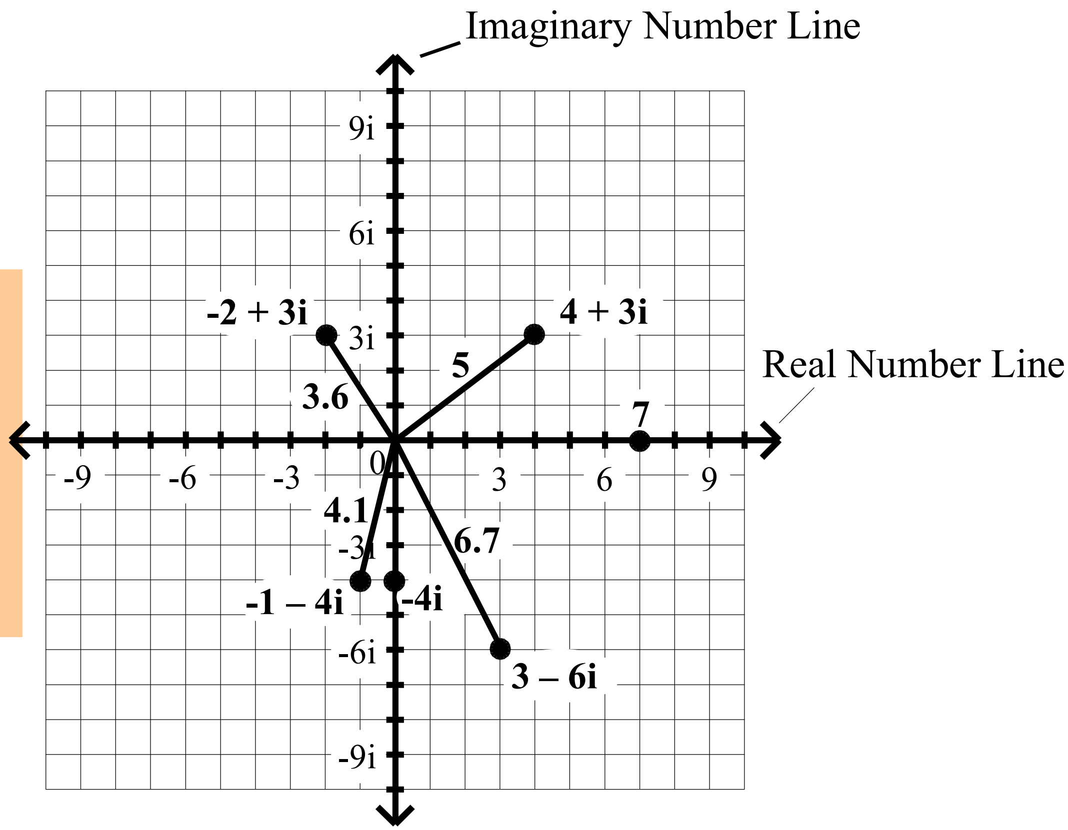

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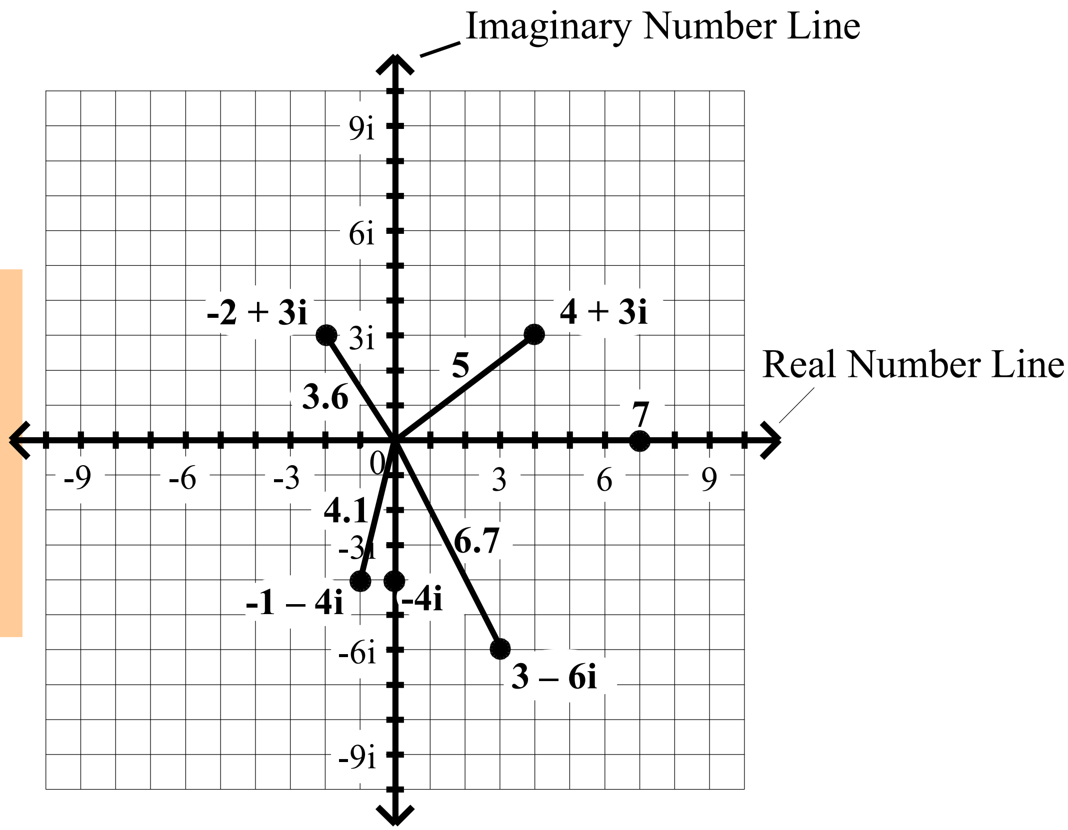

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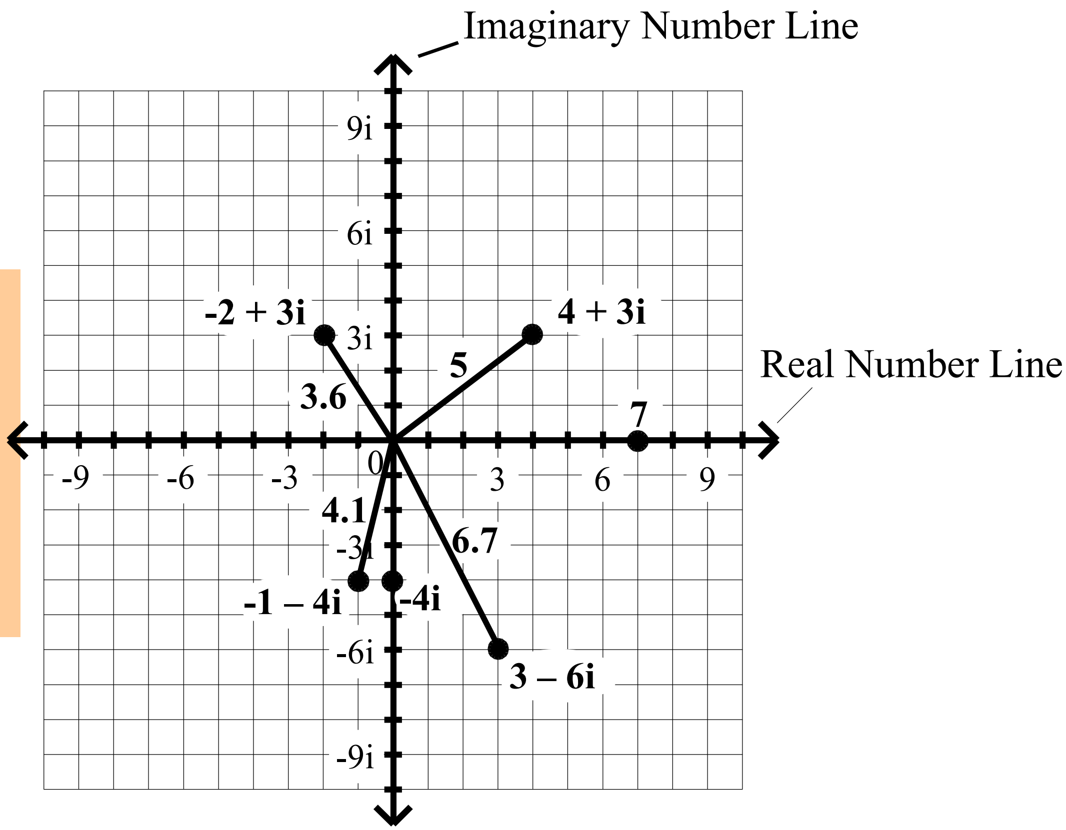

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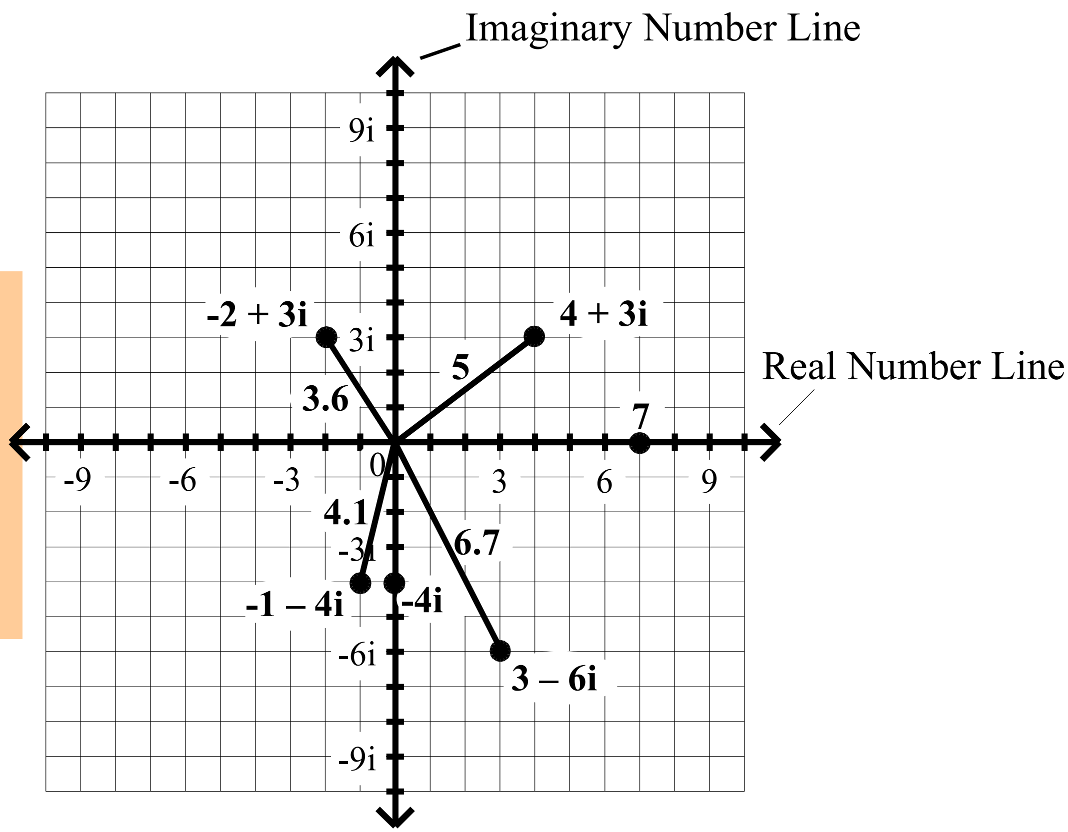

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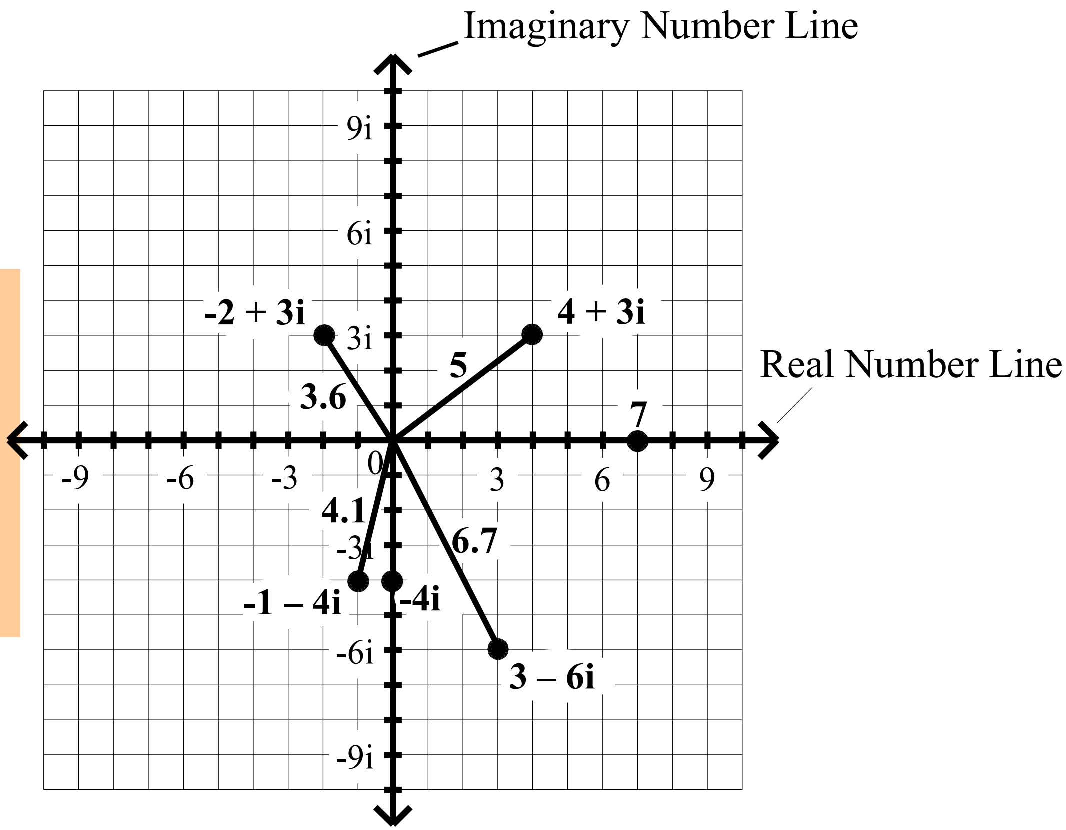

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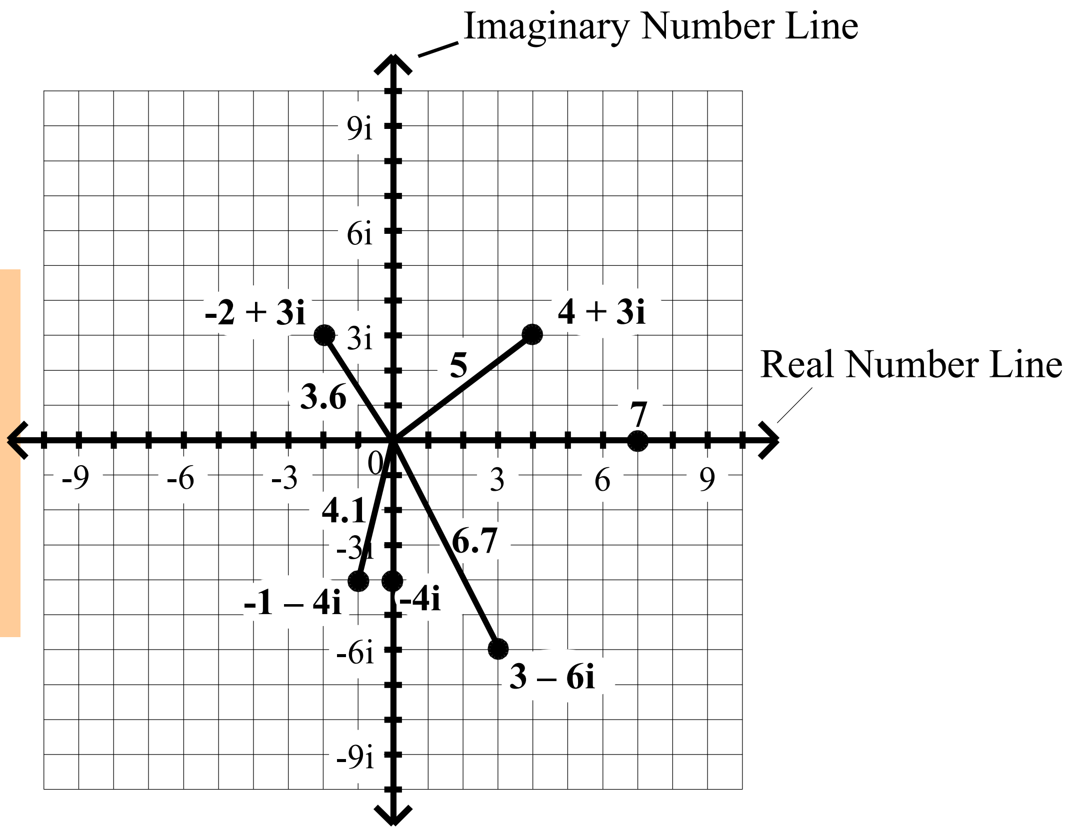

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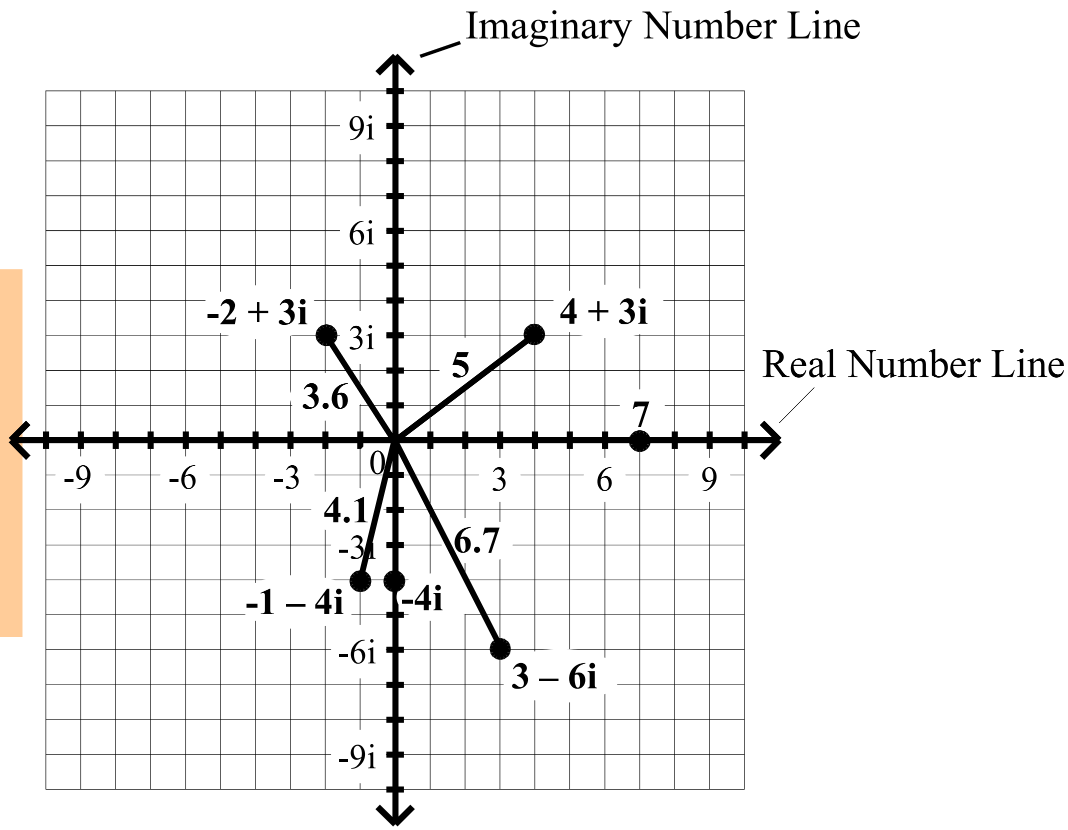

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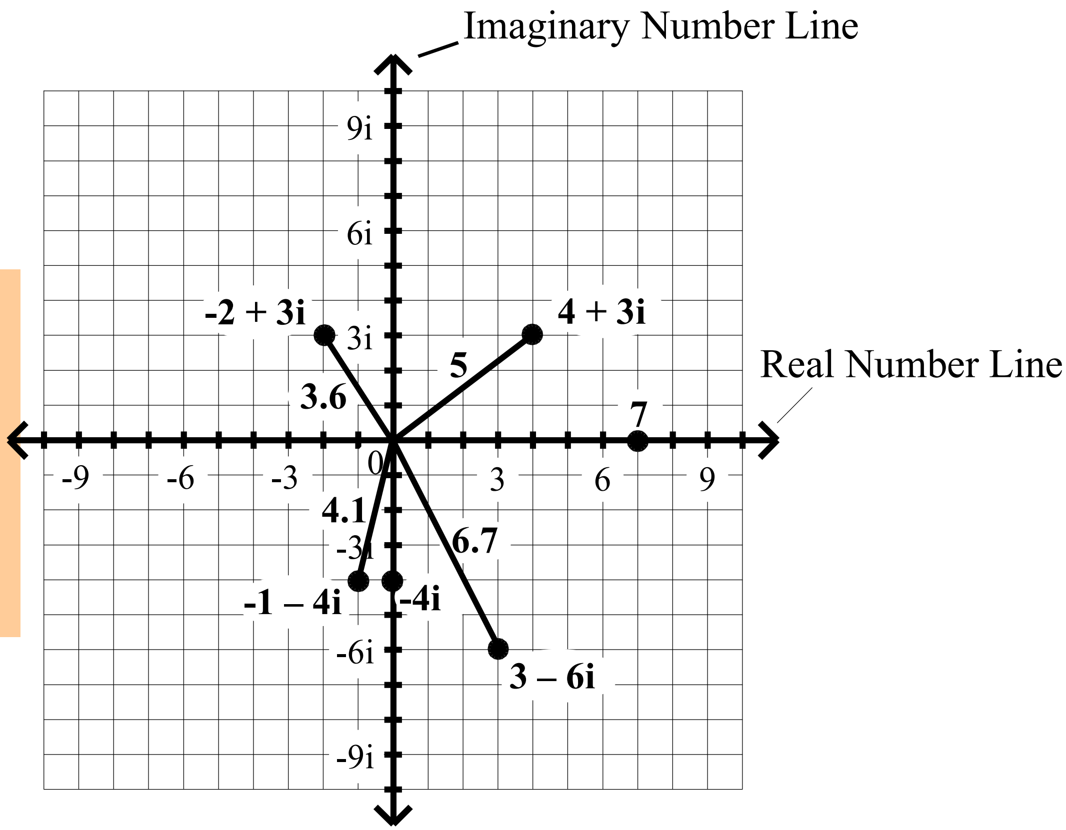

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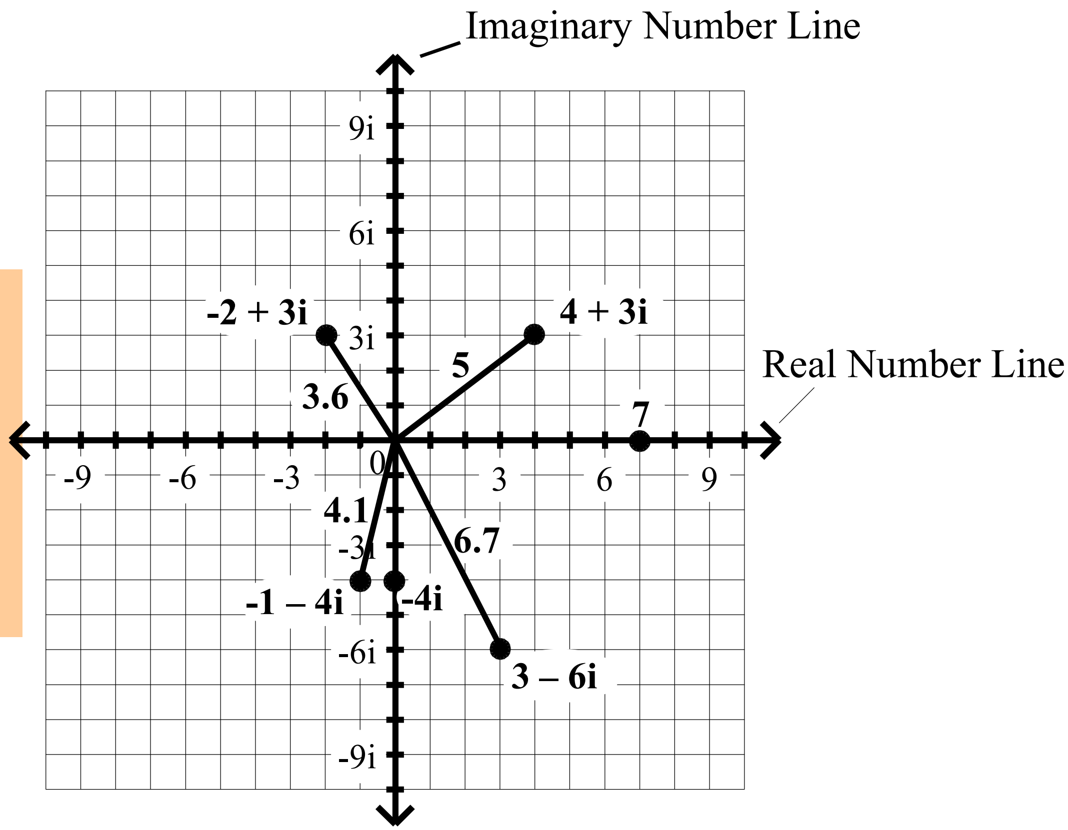

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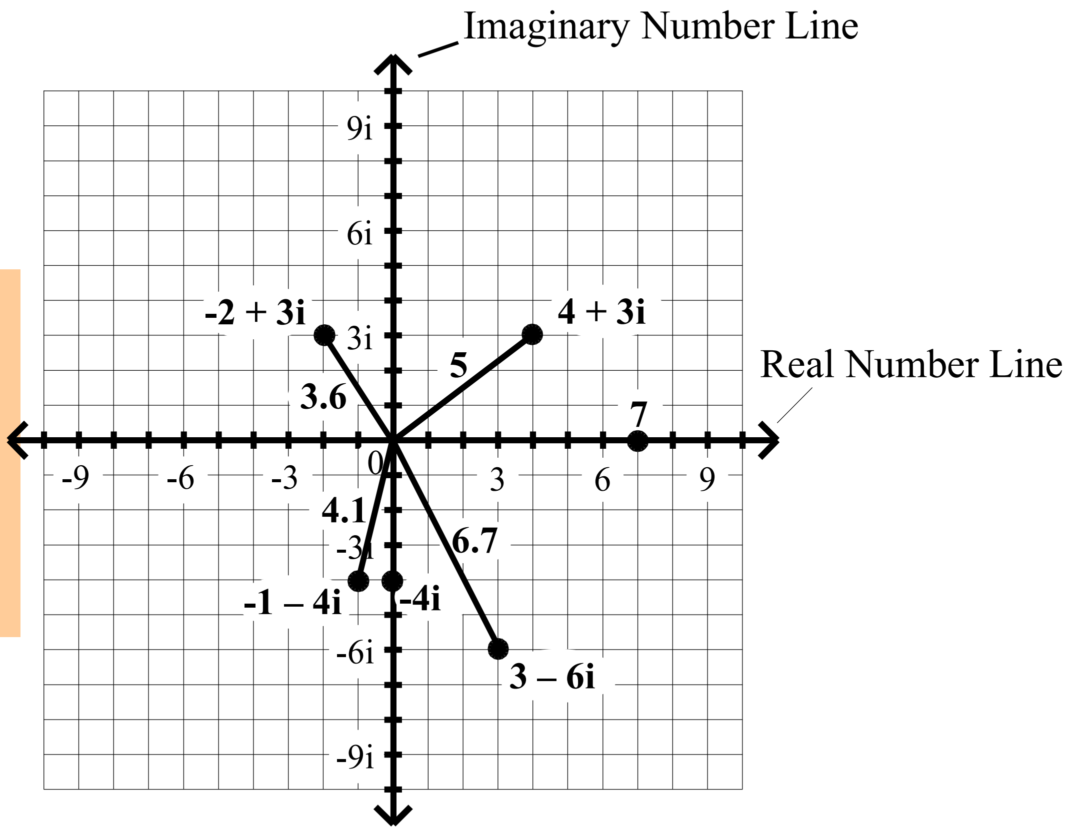

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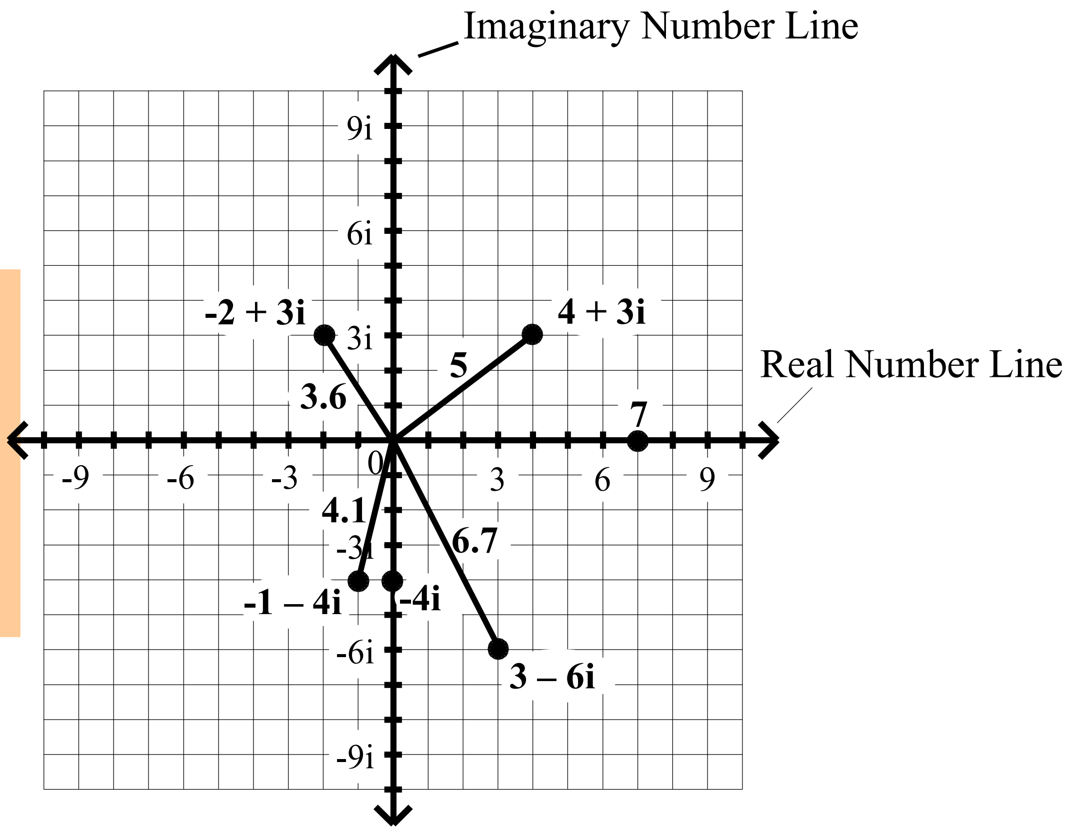

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What if we used the formula to find | 7 | ?

Algebra II Class Worksheet #4 Unit 5

Find the indicated absolute values. Express your answers in simplest form.

11. $| -4i | =$ __4__

$$| a + bi | = \sqrt{a^2 + b^2}$$

$$| 0 + -4i | = \sqrt{0^2 + (-4)^2} = \sqrt{0 + 16} =$$

$$| -4i | = \sqrt{16} = 4$$

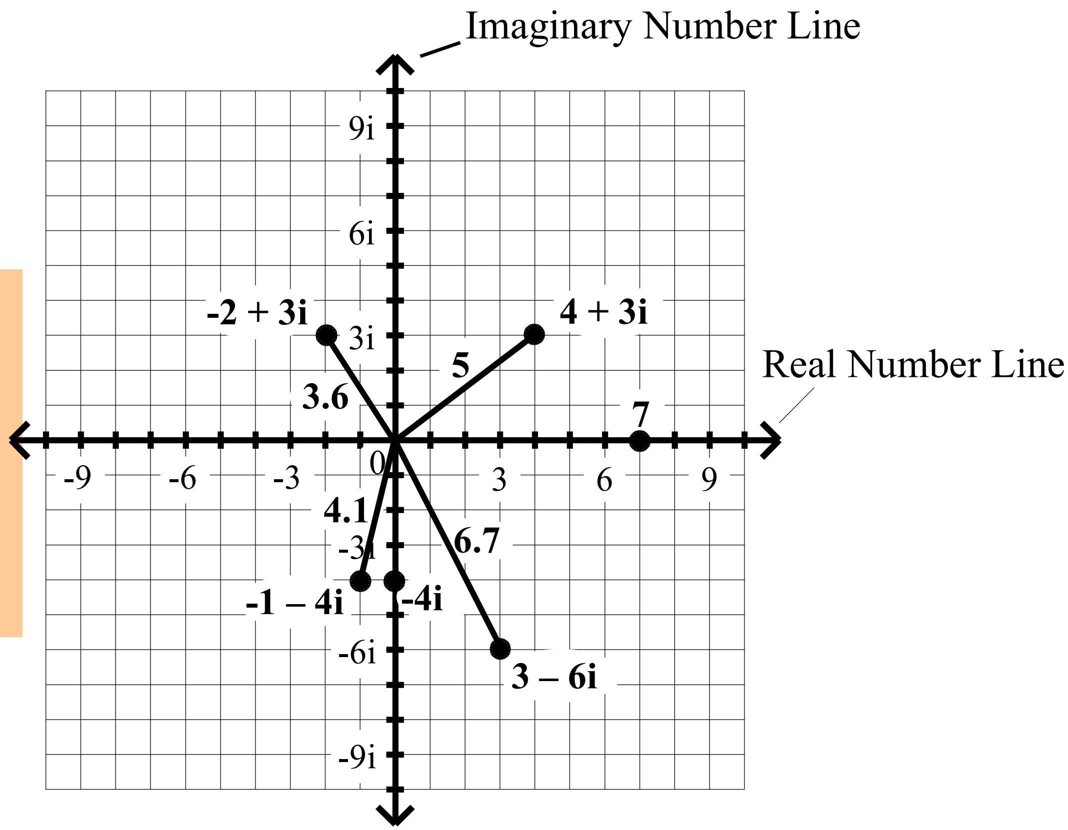
12. $| 7 | =$ __7__

$$| a + bi | = \sqrt{a^2 + b^2}$$

$$| 7 + 0i | = \sqrt{7^2 + 0^2} = \sqrt{49 + 0} =$$

$$| 7 | = \sqrt{49} = 7$$

The Complex Number Plane



The Absolute Value of Complex Numbers

$$| a + bi | = \sqrt{a^2 + b^2}$$

What if we used the formula to find | 7 | ?

Algebra II   Class Worksheet #4   Unit 5

Find the indicated absolute values. Express your answers in simplest form.

11. $|-4i| =$ ___**4**___

$|a + bi| = \sqrt{a^2 + b^2}$

$|0 + -4i| = \sqrt{0^2 + (-4)^2} = \sqrt{0 + 16} =$

$|-4i| = \sqrt{16} = 4$

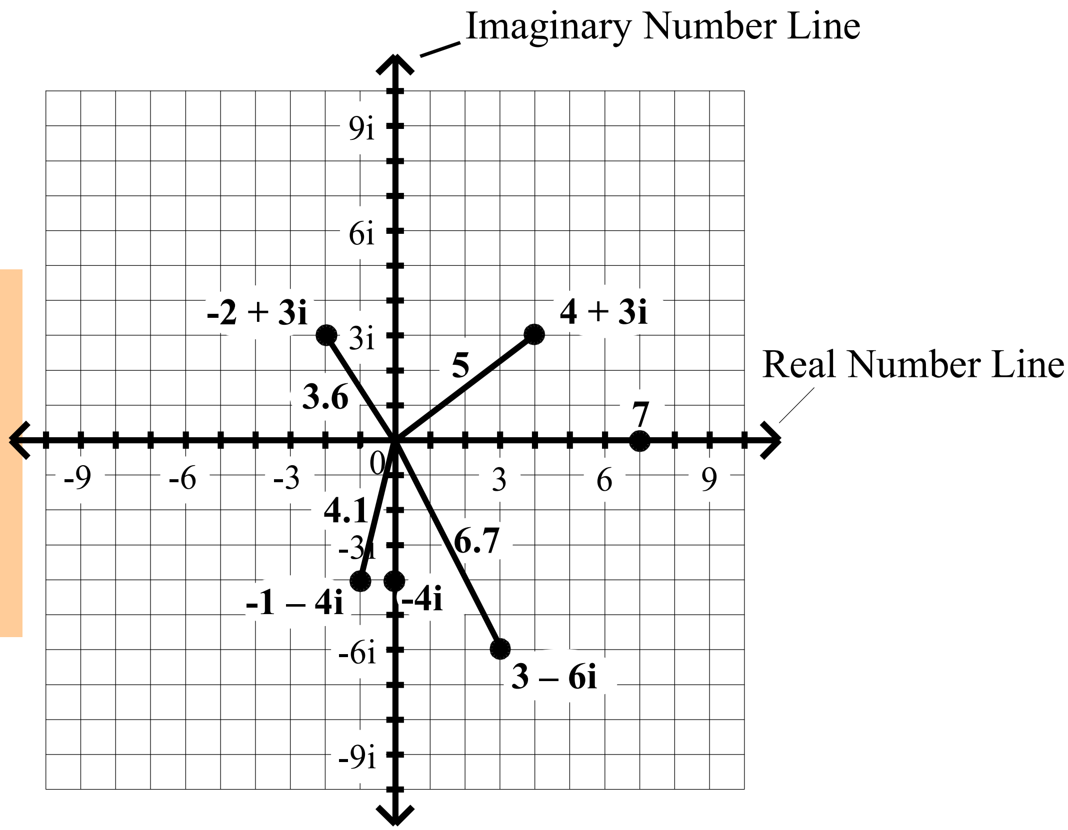
12. $|7| =$ ___**7**___

$|a + bi| = \sqrt{a^2 + b^2}$

$|7 + 0i| = \sqrt{7^2 + 0^2} = \sqrt{49 + 0} =$

$|7| = \sqrt{49} = 7$

The Complex Number Plane



The Absolute Value of Complex Numbers

$|a + bi| = \sqrt{a^2 + b^2}$

Of course, you don't <u>need</u> to use the formula to find the absolute value of any real number.

Algebra II   Class Worksheet #4   Unit 5

Find the indicated absolute values. Express your answers in simplest form.

11. $|-4i| = \underline{\quad 4 \quad}$

$$|a + bi| = \sqrt{a^2 + b^2}$$

$$|0 + -4i| = \sqrt{0^2 + (-4)^2} = \sqrt{0 + 16} =$$

$$|-4i| = \sqrt{16} = 4$$

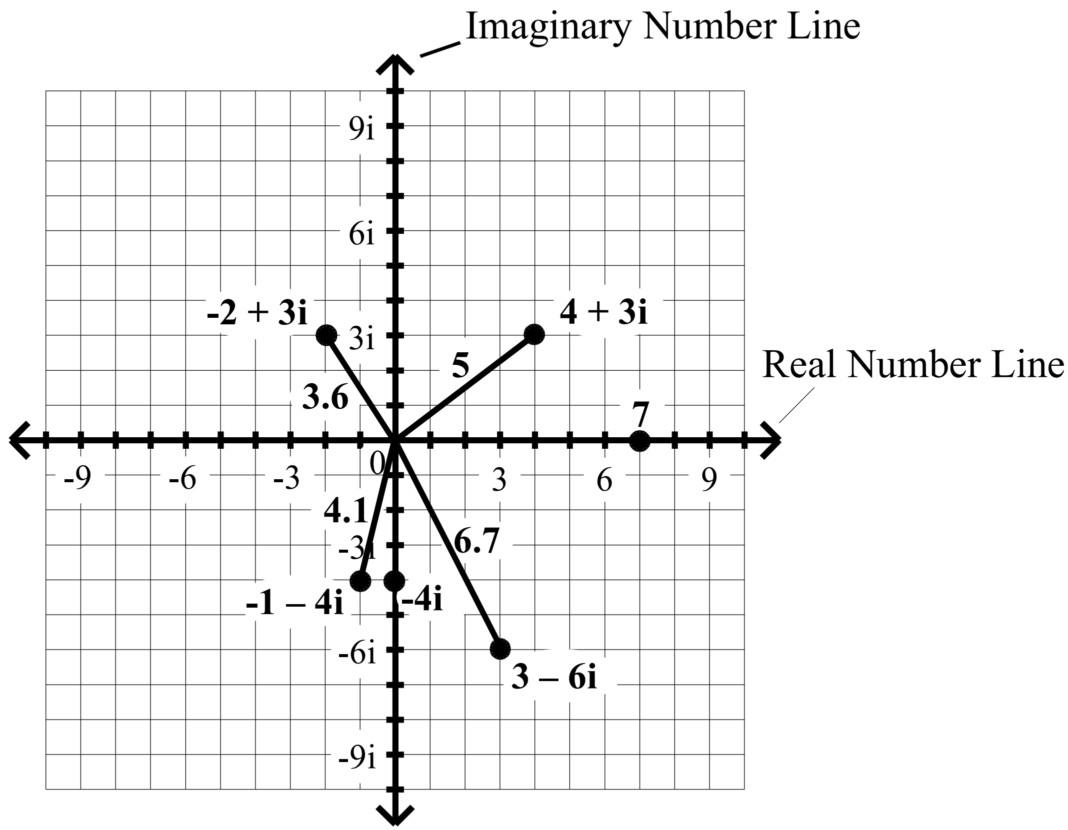
12. $|7| = \underline{\quad 7 \quad}$

$$|a + bi| = \sqrt{a^2 + b^2}$$

$$|7 + 0i| = \sqrt{7^2 + 0^2} = \sqrt{49 + 0} =$$

$$|7| = \sqrt{49} = 7$$

The Complex Number Plane



The Absolute Value of Complex Numbers

$$|a + bi| = \sqrt{a^2 + b^2}$$

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ __________ 14. $3 - 7i$ __________ 15. $-2 + i$ __________

16. 9 __________ 17. $-3i$ __________ 18. $-1 - i$ __________

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ ________ 14. $3 - 7i$ ________ 15. $-2 + i$ ________

16. 9 ________ 17. $-3i$ ________ 18. $-1 - i$ ________

If k represents any <u>real</u> number,

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ ________ 14. $3 - 7i$ ________ 15. $-2 + i$ ________

16. 9 ________ 17. $-3i$ ________ 18. $-1 - i$ ________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>,

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ ________ **14.** $3 - 7i$ ________ **15.** $-2 + i$ ________

16. 9 ________ **17.** $-3i$ ________ **18.** $-1 - i$ ________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, -k

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ ________ **14.** $3 - 7i$ ________ **15.** $-2 + i$ ________

16. 9 ________ **17.** $-3i$ ________ **18.** $-1 - i$ ________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, -k = -1k.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ _________ **14.** $3 - 7i$ _________ **15.** $-2 + i$ _________

16. 9 _________ **17.** $-3i$ _________ **18.** $-1 - i$ _________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, -k = -1k.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ ________   14. $3 - 7i$ ________   15. $-2 + i$ ________

16. 9 ________   17. $-3i$ ________   18. $-1 - i$ ________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ ________ **14.** $3 - 7i$ ________ **15.** $-2 + i$ ________

16. 9 ________ **17.** $-3i$ ________ **18.** $-1 - i$ ________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ __________

$-(6 + 8i) =$

14. $3 - 7i$ __________

15. $-2 + i$ __________

16. 9 __________

17. $-3i$ __________

18. $-1 - i$ __________

**If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.**

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. 6 + 8i ________

-(6 + 8i) = -1(6 + 8i)

14. 3 – 7i ________

15. -2 + i ________

16. 9 ________

17. -3i ________

18. -1 – i ________

If k represents any real number, the additive inverse of k, -k = -1k.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ __-6________

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ __________

15. $-2 + i$ __________

16. 9 __________

17. $-3i$ __________

18. $-1 - i$ __________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, $-k = -1k$. The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ <u>$-6 - 8i$</u>

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ ________

15. $-2 + i$ ________

16. 9 ________

17. $-3i$ ________

18. $-1 - i$ ________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, $-k = -1k$.
The same property holds for complex numbers.

Algebra II   Class Worksheet #4   Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ ___$-6 - 8i$___

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ __________

15. $-2 + i$ __________

16. 9 __________

17. $-3i$ __________

18. $-1 - i$ __________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II   Class Worksheet #4   Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ __$-6 - 8i$__   **14.** $3 - 7i$ __________   **15.** $-2 + i$ __________

$-(6 + 8i) = -1(6 + 8i)$

16. 9 __________   **17.** $-3i$ __________   **18.** $-1 - i$ __________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ $\underline{-6 - 8i}$

    $-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ ________

    $-(3 - 7i) =$

15. $-2 + i$ ________

16. 9 ________

17. $-3i$ ________

18. $-1 - i$ ________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ __-6 – 8i__

$-(6 + 8i) = -1(6 + 8i)$

14. $3 – 7i$ ________

$-(3 – 7i) = -1(3 – 7i)$

15. $-2 + i$ ________

16. 9 ________

17. $-3i$ ________

18. $-1 – i$ ________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, -k = -1k.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ $\underline{-6 - 8i}$ **14.** $3 - 7i$ $\underline{-3 \qquad}$ **15.** $-2 + i$ _________

$-(6 + 8i) = -1(6 + 8i)$ $-(3 - 7i) = -1(3 - 7i)$

16. 9 _________ **17.** $-3i$ _________ **18.** $-1 - i$ _________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, -k = -1k.
The same property holds for complex numbers.

Algebra II   Class Worksheet #4   Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ __$-6 - 8i$__

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ __$-3 + 7i$__

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ ________

16. 9 ________

17. $-3i$ ________

18. $-1 - i$ ________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ __$-6 - 8i$__

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ __$-3 + 7i$__

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ ________

16. 9 ________

17. $-3i$ ________

18. $-1 - i$ ________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ __$-6 - 8i$__

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ __$-3 + 7i$__

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ __________

16. 9 __________

17. $-3i$ __________

18. $-1 - i$ __________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ __$-6 - 8i$__

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ __$-3 + 7i$__

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ __________

$-(-2 + i) =$

16. 9 __________

17. $-3i$ __________

18. $-1 - i$ __________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ $\underline{-6 - 8i}$

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ $\underline{-3 + 7i}$

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ _________

$-(-2 + i) = -1(-2 + i)$

16. 9 _________

17. $-3i$ _________

18. $-1 - i$ _________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ $\underline{-6 - 8i}$

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ $\underline{-3 + 7i}$

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ $\underline{\ \ 2\ \ \ \ \ \ }$

$-(-2 + i) = -1(-2 + i)$

16. 9 _________

17. $-3i$ _________

18. $-1 - i$ _________

If k represents any real number, the additive inverse of k, -k = -1k.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ $\underline{-6 - 8i}$

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ $\underline{-3 + 7i}$

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ $\underline{2 - i}$

$-(-2 + i) = -1(-2 + i)$

16. 9 ________

17. $-3i$ ________

18. $-1 - i$ ________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II   Class Worksheet #4   Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ __**$-6 - 8i$**__

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ __**$-3 + 7i$**__

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ __**$2 - i$**__

$-(-2 + i) = -1(-2 + i)$

16. 9 __________

17. $-3i$ __________

18. $-1 - i$ __________

If k represents any real number, the additive inverse of k, $-k = -1k$. The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ ___$-6 - 8i$___

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ ___$-3 + 7i$___

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ ___$2 - i$___

$-(-2 + i) = -1(-2 + i)$

16. 9 __________

17. $-3i$ __________

18. $-1 - i$ __________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ $\underline{-6 - 8i}$ **14.** $3 - 7i$ $\underline{-3 + 7i}$ **15.** $-2 + i$ $\underline{2 - i}$

$-(6 + 8i) = -1(6 + 8i)$ $-(3 - 7i) = -1(3 - 7i)$ $-(-2 + i) = -1(-2 + i)$

16. 9 $\underline{-9}$ **17.** $-3i$ _________ **18.** $-1 - i$ _________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, -k = -1k.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ __$-6 - 8i$__ **14.** $3 - 7i$ __$-3 + 7i$__ **15.** $-2 + i$ __$2 - i$__

$-(6 + 8i) = -1(6 + 8i)$ $-(3 - 7i) = -1(3 - 7i)$ $-(-2 + i) = -1(-2 + i)$

16. 9 __-9__ **17.** $-3i$ ________ **18.** $-1 - i$ ________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ $\underline{-6 - 8i}$

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ $\underline{-3 + 7i}$

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ $\underline{2 - i}$

$-(-2 + i) = -1(-2 + i)$

16. 9 $\underline{-9}$

17. $-3i$ ________

18. $-1 - i$ ________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ ___$-6 - 8i$___ 14. $3 - 7i$ ___$-3 + 7i$___ 15. $-2 + i$ ___$2 - i$___

$-(6 + 8i) = -1(6 + 8i)$ $-(3 - 7i) = -1(3 - 7i)$ $-(-2 + i) = -1(-2 + i)$

16. 9 ___-9___ 17. $-3i$ ___$3i$___ 18. $-1 - i$ ________

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ ___$-6 - 8i$___

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ ___$-3 + 7i$___

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ ___$2 - i$___

$-(-2 + i) = -1(-2 + i)$

16. 9 ___-9___

17. $-3i$ ___$3i$___

18. $-1 - i$ ________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II   Class Worksheet #4   Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ **$-6 - 8i$**

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ **$-3 + 7i$**

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ **$2 - i$**

$-(-2 + i) = -1(-2 + i)$

16. 9 **-9**

17. $-3i$ **$3i$**

18. $-1 - i$ ________

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ $\underline{-6 - 8i}$

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ $\underline{-3 + 7i}$

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ $\underline{2 - i}$

$-(-2 + i) = -1(-2 + i)$

16. 9 $\underline{-9}$

17. $-3i$ $\underline{3i}$

18. $-1 - i$ ________

$-(-1 - i) =$

**If k represents any <u>real</u> number, the <u>additive inverse of k</u>, -k = -1k.
The same property holds for complex numbers.**

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ **$-6 - 8i$**

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ **$-3 + 7i$**

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ **$2 - i$**

$-(-2 + i) = -1(-2 + i)$

16. 9 **-9**

17. $-3i$ **$3i$**

18. $-1 - i$ ________

$-(-1 - i) = -1(-1 - i)$

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ <u>$-6 - 8i$</u>

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ <u>$-3 + 7i$</u>

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ <u>$2 - i$</u>

$-(-2 + i) = -1(-2 + i)$

16. 9 <u>-9</u>

17. $-3i$ <u>$3i$</u>

18. $-1 - i$ <u>1</u>

$-(-1 - i) = -1(-1 - i)$

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ $\underline{-6 - 8i}$

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ $\underline{-3 + 7i}$

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ $\underline{2 - i}$

$-(-2 + i) = -1(-2 + i)$

16. 9 $\underline{-9}$

17. $-3i$ $\underline{3i}$

18. $-1 - i$ $\underline{1 + i}$

$-(-1 - i) = -1(-1 - i)$

If k represents any <u>real</u> number, the <u>additive inverse of k</u>, -k = -1k.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ **$-6 - 8i$**

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ **$-3 + 7i$**

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ **$2 - i$**

$-(-2 + i) = -1(-2 + i)$

16. 9 **-9**

17. $-3i$ **$3i$**

18. $-1 - i$ **$1 + i$**

$-(-1 - i) = -1(-1 - i)$

**If k represents any <u>real</u> number, the <u>additive inverse of k</u>, $-k = -1k$.
The same property holds for complex numbers.**

Algebra II Class Worksheet #4 Unit 5

Find the additive inverse (opposite) of each of the following.

13. $6 + 8i$ **$-6 - 8i$**

$-(6 + 8i) = -1(6 + 8i)$

14. $3 - 7i$ **$-3 + 7i$**

$-(3 - 7i) = -1(3 - 7i)$

15. $-2 + i$ **$2 - i$**

$-(-2 + i) = -1(-2 + i)$

16. 9 **-9**

17. $-3i$ **$3i$**

18. $-1 - i$ **$1 + i$**

$-(-1 - i) = -1(-1 - i)$

If k represents any real number, the additive inverse of k, $-k = -1k$.
The same property holds for complex numbers.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ __________

20. $(7 – 3i) + (-1 + 3i) =$ __________

21. $(-3 – 8i) + (4 + i) =$ __________

22. $(9 – 7i) + (-3 – 5i) =$ __________

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 – 3i) + (-1 + 3i) =$ ___________

21. $(-3 – 8i) + (4 + i) =$ ___________

22. $(9 – 7i) + (-3 – 5i) =$ ___________

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When writing a complex number in a + bi form,

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When writing a complex number in <u>a + bi</u> form, if <u>b</u> is a negative number,

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When writing a complex number in a + bi form, if b is a negative number, it is customary to avoid the double sign.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When writing a complex number in a + bi form, if b is a negative number, it is customary to avoid the double sign. For example, 3 + -2i

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When writing a complex number in <u>a + bi</u> form, if <u>b</u> is a negative number, it is customary to avoid the double sign. For example, $3 + -2i$ is written as $3 - 2i$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers,

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers, treat the number i like a variable

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___8________

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers, treat the number i like a variable and simply <u>add like terms</u>.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ __8__________

20. $(7 - 3i) + (-1 + 3i) =$ ____________

21. $(-3 - 8i) + (4 + i) =$ ____________

22. $(9 - 7i) + (-3 - 5i) =$ ____________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ ___8 + 9i___

20. $(7 - 3i) + (-1 + 3i) =$ __________

21. $(-3 - 8i) + (4 + i) =$ __________

22. $(9 - 7i) + (-3 - 5i) =$ __________

When adding complex numbers, treat the number i like a variable and simply <u>add like terms</u>.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ __ $8 + 9i$ __

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers, treat the number i like a variable and simply <u>add like terms</u>.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ **8 + 9i**

20. $(7 - 3i) + (-1 + 3i) =$ ___________

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers, treat the number i like a variable and simply <u>add like terms</u>.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ **8 + 9i**

20. $(7 - 3i) + (-1 + 3i) =$ ____________

21. $(-3 - 8i) + (4 + i) =$ ____________

22. $(9 - 7i) + (-3 - 5i) =$ ____________

When adding complex numbers, treat the number i like a variable and simply <u>add like terms</u>.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ __8 + 9i__

20. $(7 - 3i) + (-1 + 3i) =$ __6__

21. $(-3 - 8i) + (4 + i) =$ ____________

22. $(9 - 7i) + (-3 - 5i) =$ ____________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. (3 + 7i) + (5 + 2i) = 8 + 9i

20. (7 – 3i) + (-1 + 3i) = 6

21. (-3 – 8i) + (4 + i) = ___________

22. (9 – 7i) + (-3 – 5i) = ___________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. (3 + 7i) + (5 + 2i) = 8 + 9i

20. (7 – 3i) + (-1 + 3i) = 6 + 0i

21. (-3 – 8i) + (4 + i) = ___________

22. (9 – 7i) + (-3 – 5i) = ___________

When adding complex numbers, treat the number i like a variable and simply <u>add like terms</u>.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ __8 + 9i__

20. $(7 - 3i) + (-1 + 3i) =$ __6__

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ **8 + 9i**

20. $(7 - 3i) + (-1 + 3i) =$ **6**

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ **8 + 9i**

20. $(7 - 3i) + (-1 + 3i) =$ **6**

21. $(-3 - 8i) + (4 + i) =$ ___________

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ __8 + 9i__

20. $(7 - 3i) + (-1 + 3i) =$ __6__

21. $(-3 - 8i) + (4 + i) =$ __1__

22. $(9 - 7i) + (-3 - 5i) =$ ________

When adding complex numbers, treat the number i like a variable and simply <u>add like terms</u>.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ <u>8 + 9i</u>

20. $(7 - 3i) + (-1 + 3i) =$ <u>6</u>

21. $(-3 - 8i) + (4 + i) =$ <u>1</u>

22. $(9 - 7i) + (-3 - 5i) =$ __________

When adding complex numbers, treat the number i like a variable and simply <u>add like terms</u>.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ <u>8 + 9i</u>

20. $(7 – 3i) + (-1 + 3i) =$ <u>6</u>

21. $(-3 – 8i) + (4 + i) =$ <u>1 – 7i</u>

22. $(9 – 7i) + (-3 – 5i) =$ ___________

When adding complex numbers, treat the number i like a variable and simply <u>add like terms</u>.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ **8 + 9i**

20. $(7 - 3i) + (-1 + 3i) =$ **6**

21. $(-3 - 8i) + (4 + i) =$ **1 – 7i**

22. $(9 - 7i) + (-3 - 5i) =$ ___________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ **8 + 9i**

20. $(7 - 3i) + (-1 + 3i) =$ **6**

21. $(-3 - 8i) + (4 + i) =$ **1 – 7i**

22. $(9 - 7i) + (-3 - 5i) =$ ____________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ **8 + 9i**

20. $(7 - 3i) + (-1 + 3i) =$ **6**

21. $(-3 - 8i) + (4 + i) =$ **1 – 7i**

22. $(9 - 7i) + (-3 - 5i) =$ ____________

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ **8 + 9i**

20. $(7 - 3i) + (-1 + 3i) =$ **6**

21. $(-3 - 8i) + (4 + i) =$ **1 – 7i**

22. $(9 - 7i) + (-3 - 5i) =$ **6**

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ **8 + 9i**

20. $(7 - 3i) + (-1 + 3i) =$ **6**

21. $(-3 - 8i) + (4 + i) =$ **1 – 7i**

22. $(9 - 7i) + (-3 - 5i) =$ 6

When adding complex numbers, treat the number i like a variable and simply <u>add like terms</u>.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ __8 + 9i__

20. $(7 - 3i) + (-1 + 3i) =$ __6__

21. $(-3 - 8i) + (4 + i) =$ __1 – 7i__

22. $(9 - 7i) + (-3 - 5i) =$ __6 – 12i__

When adding complex numbers, treat the number i like a variable and simply <u>add like terms</u>.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. (3 + 7i) + (5 + 2i) = __8 + 9i__

20. (7 – 3i) + (-1 + 3i) = __6__

21. (-3 – 8i) + (4 + i) = __1 – 7i__

22. (9 – 7i) + (-3 – 5i) = __6 – 12i__

When adding complex numbers, treat the number i like a variable and simply add like terms.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

19. $(3 + 7i) + (5 + 2i) =$ **8 + 9i**

20. $(7 - 3i) + (-1 + 3i) =$ **6**

21. $(-3 - 8i) + (4 + i) =$ **1 – 7i**

22. $(9 - 7i) + (-3 - 5i) =$ **6 – 12i**

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ __________

24. $(8 + 3i) - (5 + 6i) =$ __________

25. $(5 - i) - (5 - 7i) =$ __________

26. $(4 - 6i) - (-8 + 5i) =$ __________

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ___________

24. $(8 + 3i) - (5 + 6i) =$ ___________

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers,

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ____________

24. $(8 + 3i) - (5 + 6i) =$ ____________

25. $(5 - i) - (5 - 7i) =$ ____________

26. $(4 - 6i) - (-8 + 5i) =$ ____________

When subtracting complex numbers, change the subtraction to addition.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ___________

24. $(8 + 3i) - (5 + 6i) =$ ___________

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ___________

24. $(8 + 3i) - (5 + 6i) =$ ___________

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ___________

$= (2 + 8i)$

24. $(8 + 3i) - (5 + 6i) =$ ___________

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ____________

$= (2 + 8i) +$

24. $(8 + 3i) - (5 + 6i) =$ ____________

25. $(5 - i) - (5 - 7i) =$ ____________

26. $(4 - 6i) - (-8 + 5i) =$ ____________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ___________

$= (2 + 8i) + (-5 - 3i)$

24. $(8 + 3i) - (5 + 6i) =$ ___________

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ___________

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___________

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ___________

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___________

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ **-3**

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___________

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ <u>-3</u>

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___________

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ __-3 + 5i__

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___________

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ __-3 + 5i__

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ____________

25. $(5 - i) - (5 - 7i) =$ ____________

26. $(4 - 6i) - (-8 + 5i) =$ ____________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) – (5 + 3i) =$ ___-3 + 5i___

$= (2 + 8i) + (-5 – 3i) =$

24. $(8 + 3i) – (5 + 6i) =$ ____________

25. $(5 – i) – (5 – 7i) =$ ____________

26. $(4 – 6i) – (-8 + 5i) =$ ____________

When subtracting complex numbers, change the subtraction to addition. $P – Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ **-3 + 5i**

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___________

$= (8 + 3i)$

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ __-3 + 5i__

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___________

$= (8 + 3i) +$

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. (2 + 8i) – (5 + 3i) = <u>-3 + 5i</u>

= (2 + 8i) + (-5 – 3i) =

24. (8 + 3i) – (5 + 6i) = ___________

= (8 + 3i) + (-5 – 6i)

25. (5 – i) – (5 – 7i) = ___________

26. (4 – 6i) – (-8 + 5i) = ___________

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ $\underline{-3 + 5i}$

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___________

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ___ -3 + 5i ___

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___ 3 ___

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ___-3 + 5i___

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___3___

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ ____________

26. $(4 - 6i) - (-8 + 5i) =$ ____________

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ $\underline{\quad -3 + 5i \quad}$

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ $\underline{\quad 3 - 3i \quad}$

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ <u>-3 + 5i</u>

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ <u>3 – 3i</u>

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ ___________

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ **-3 + 5i**

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ **3 – 3i**

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ ____________

26. $(4 - 6i) - (-8 + 5i) =$ ____________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ **-3 + 5i**

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ **3 – 3i**

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ ___________

$= (5 - i)$

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ **-3 + 5i**

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ **3 – 3i**

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ __________

$= (5 - i) +$

26. $(4 - 6i) - (-8 + 5i) =$ __________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ __-3 + 5i__

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ __3 - 3i__

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ ___________

$= (5 - i) + (-5 + 7i)$

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ___-3 + 5i___

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___3 – 3i___

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ ____________

$= (5 - i) + (-5 + 7i) =$

26. $(4 - 6i) - (-8 + 5i) =$ ____________

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ ___-3 + 5i___

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ ___3 – 3i___

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ ___0___

$= (5 - i) + (-5 + 7i) =$

26. $(4 - 6i) - (-8 + 5i) =$ ___________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ **-3 + 5i**

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ **3 – 3i**

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ **0**

$= (5 - i) + (-5 + 7i) =$

26. $(4 - 6i) - (-8 + 5i) =$ ____________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) = \underline{\quad -3 + 5i \quad}$

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) = \underline{\quad 3 - 3i \quad}$

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) = \underline{\quad 0 + 6i \quad}$

$= (5 - i) + (-5 + 7i) =$

26. $(4 - 6i) - (-8 + 5i) = \underline{\qquad\qquad}$

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ **-3 + 5i**

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ **3 – 3i**

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ **6i**

$= (5 - i) + (-5 + 7i) =$

26. $(4 - 6i) - (-8 + 5i) =$ ____________

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ <u>$-3 + 5i$</u>

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ <u>$3 - 3i$</u>

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ <u>$6i$</u>

$= (5 - i) + (-5 + 7i) =$

26. $(4 - 6i) - (-8 + 5i) =$ ____________

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ <u>-3 + 5i</u>

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ <u>3 – 3i</u>

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ <u>6i</u>

$= (5 - i) + (-5 + 7i) =$

26. $(4 - 6i) - (-8 + 5i) =$ ____________

$= (4 - 6i)$

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ $\underline{\ -3 + 5i\ }$

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ $\underline{\ 3 - 3i\ }$

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ $\underline{\ 6i\ }$

$= (5 - i) + (-5 + 7i) =$

26. $(4 - 6i) - (-8 + 5i) =$ __________

$= (4 - 6i) +$

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ __-3 + 5i__

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ __3 – 3i__

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ __6i__

$= (5 - i) + (-5 + 7i) =$

26. $(4 - 6i) - (-8 + 5i) =$ ____________

$= (4 - 6i) + (8 - 5i)$

When subtracting complex numbers, change the subtraction to addition. $P - Q = P + -Q$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ **-3 + 5i**

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ **3 – 3i**

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ **6i**

$= (5 - i) + (-5 + 7i) =$

26. $(4 - 6i) - (-8 + 5i) =$ ____________

$= (4 - 6i) + (8 - 5i) =$

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. (2 + 8i) – (5 + 3i) = -3 + 5i

= (2 + 8i) + (-5 – 3i) =

24. (8 + 3i) – (5 + 6i) = 3 – 3i

= (8 + 3i) + (-5 – 6i) =

25. (5 – i) – (5 – 7i) = 6i

= (5 – i) + (-5 + 7i) =

26. (4 – 6i) – (-8 + 5i) = 12

= (4 – 6i) + (8 – 5i) =

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. (2 + 8i) – (5 + 3i) = **-3 + 5i**

= (2 + 8i) + (-5 – 3i) =

24. (8 + 3i) – (5 + 6i) = **3 – 3i**

= (8 + 3i) + (-5 – 6i) =

25. (5 – i) – (5 – 7i) = **6i**

= (5 – i) + (-5 + 7i) =

26. (4 – 6i) – (-8 + 5i) = **12**

= (4 – 6i) + (8 – 5i) =

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. (2 + 8i) – (5 + 3i) = __-3 + 5i__

= (2 + 8i) + (-5 – 3i) =

24. (8 + 3i) – (5 + 6i) = __3 – 3i__

= (8 + 3i) + (-5 – 6i) =

25. (5 – i) – (5 – 7i) = __6i__

= (5 – i) + (-5 + 7i) =

26. (4 – 6i) – (-8 + 5i) = __12 – 11i__

= (4 – 6i) + (8 – 5i) =

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. $(2 + 8i) - (5 + 3i) =$ **-3 + 5i**

$= (2 + 8i) + (-5 - 3i) =$

24. $(8 + 3i) - (5 + 6i) =$ **3 – 3i**

$= (8 + 3i) + (-5 - 6i) =$

25. $(5 - i) - (5 - 7i) =$ **6i**

$= (5 - i) + (-5 + 7i) =$

26. $(4 - 6i) - (-8 + 5i) =$ **12 – 11i**

$= (4 - 6i) + (8 - 5i) =$

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

23. (2 + 8i) – (5 + 3i) = **-3 + 5i**

= (2 + 8i) + (-5 – 3i) =

24. (8 + 3i) – (5 + 6i) = **3 – 3i**

= (8 + 3i) + (-5 – 6i) =

25. (5 – i) – (5 – 7i) = **6i**

= (5 – i) + (-5 + 7i) =

26. (4 – 6i) – (-8 + 5i) = **12 – 11i**

= (4 – 6i) + (8 – 5i) =

When subtracting complex numbers, change the subtraction to addition. P – Q = P + -Q.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers,

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the number i like a variable.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer,

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ __________

28. $-3(4 - 7i) =$ __________

29. $2i(2 + 3i) =$ __________

30. $-5i(6 + 4i) =$ __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note:

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$,

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ __15__________

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ <u>15</u>

28. $-3(4 - 7i) =$ __________

29. $2i(2 + 3i) =$ __________

30. $-5i(6 + 4i) =$ __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ <u>15 + 10i</u>

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ _**15 + 10i**_

28. $-3(4 - 7i) =$ __________

29. $2i(2 + 3i) =$ __________

30. $-5i(6 + 4i) =$ __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ __15 + 10i__

28. $-3(4 - 7i) =$ ___________

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. 5(3 + 2i) = __15 + 10i__

28. -3(4 – 7i) = ___________

29. 2i(2 + 3i) = ___________

30. -5i(6 + 4i) = ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___15 + 10i___

28. $-3(4 - 7i) =$ ___-12___

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12**

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ ___________

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ __________

30. $-5i(6 + 4i) =$ __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ ____________

$=$

30. $-5i(6 + 4i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ ___________

$= 4i$

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ ____________

$= 4i$

30. $-5i(6 + 4i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ ___________

$= 4i + 6i^2$

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ ____________

$= 4i + 6i^2 =$

30. $-5i(6 + 4i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ __15 + 10i__

28. $-3(4 - 7i) =$ __-12 + 21i__

29. $2i(2 + 3i) =$ ___________

$= 4i + 6i^2 = 4i$

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

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29. $2i(2 + 3i) =$ ____________

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ ___________

$= 4i + 6i^2 = 4i - 6$

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

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When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ <u>15 + 10i</u>

28. $-3(4 - 7i) =$ <u>-12 + 21i</u>

29. $2i(2 + 3i) =$ <u>-6</u>

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

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$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ __________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ __15 + 10i__

28. $-3(4 - 7i) =$ __-12 + 21i__

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$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ **-6 + 4i**

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ____________

$=$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ __15 + 10i__

28. $-3(4 - 7i) =$ __-12 + 21i__

29. $2i(2 + 3i) =$ __-6 + 4i__

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ____________

$= -30i$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ **-6 + 4i**

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ____________

$= -30i$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ **-6 + 4i**

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ____________

$= -30i - 20i^2$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ **-6 + 4i**

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ____________

$= -30i - 20i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ ___$15 + 10i$___

28. $-3(4 - 7i) =$ ___$-12 + 21i$___

29. $2i(2 + 3i) =$ ___$-6 + 4i$___

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ____________

$= -30i - 20i^2 = -30i$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ **-6 + 4i**

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ____________

$= -30i - 20i^2 = -30i$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ **-6 + 4i**

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ___________

$= -30i - 20i^2 = -30i + 20$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ **-6 + 4i**

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ ___________

$= -30i - 20i^2 = -30i + 20 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ __15 + 10i__

28. $-3(4 - 7i) =$ __-12 + 21i__

29. $2i(2 + 3i) =$ __-6 + 4i__

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ __20__

$= -30i - 20i^2 = -30i + 20 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ __15 + 10i__

28. $-3(4 - 7i) =$ __-12 + 21i__

29. $2i(2 + 3i) =$ __-6 + 4i__

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ __20 – 30i__

$= -30i - 20i^2 = -30i + 20 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ **-6 + 4i**

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ **20 – 30i**

$= -30i - 20i^2 = -30i + 20 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

27. $5(3 + 2i) =$ **15 + 10i**

28. $-3(4 - 7i) =$ **-12 + 21i**

29. $2i(2 + 3i) =$ **-6 + 4i**

$= 4i + 6i^2 = 4i - 6 =$

30. $-5i(6 + 4i) =$ **20 – 30i**

$= -30i - 20i^2 = -30i + 20 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ___________

32. $(3 - 7i)(1 + 4i) =$ ___________

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ____________

32. $(3 - 7i)(1 + 4i) =$ ____________

33. $(7 - 3i)(2 - 5i) =$ ____________

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ____________

=

32. $(3 - 7i)(1 + 4i) =$ ____________

33. $(7 - 3i)(2 - 5i) =$ ____________

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. (2 + 3i)(5 + i) = __________

= 10

32. (3 – 7i)(1 + 4i) = __________

33. (7 – 3i)(2 – 5i) = __________

34. (1 – 8i)(5 + 3i) = __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ____________

$= 10$

32. $(3 - 7i)(1 + 4i) =$ ____________

33. $(7 - 3i)(2 - 5i) =$ ____________

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ___________

$= 10 + 2i$

32. $(3 - 7i)(1 + 4i) =$ ___________

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ___________

$= 10 + 2i$

32. $(3 - 7i)(1 + 4i) =$ ___________

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ___________

$= 10 + 2i + 15i$

32. $(3 - 7i)(1 + 4i) =$ ___________

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ___________

$= 10 + 2i + 15i$

32. $(3 - 7i)(1 + 4i) =$ ___________

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ___________

$= 10 + 2i + 15i + 3i^2$

32. $(3 - 7i)(1 + 4i) =$ ___________

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ___________

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ___________

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ____________

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ____________

33. $(7 - 3i)(2 - 5i) =$ ____________

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ ____________

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ____________

33. $(7 - 3i)(2 - 5i) =$ ____________

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7________

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 – 7i)(1 + 4i) =$ ___________

33. $(7 – 3i)(2 – 5i) =$ ___________

34. $(1 – 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) = \underline{\quad 7 \qquad\qquad}$

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) = \underline{\qquad\qquad}$

33. $(7 - 3i)(2 - 5i) = \underline{\qquad\qquad}$

34. $(1 - 8i)(5 + 3i) = \underline{\qquad\qquad}$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ <u>7 + 17i</u>

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ____________

33. $(7 - 3i)(2 - 5i) =$ ____________

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ___________

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ___________

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) = $ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) = $ ___________

$=$

33. $(7 - 3i)(2 - 5i) = $ ___________

34. $(1 - 8i)(5 + 3i) = $ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ____________

$= 3$

33. $(7 - 3i)(2 - 5i) =$ ____________

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) = \underline{\quad 7 + 17i \quad}$

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) = \underline{\qquad\qquad}$

$= 3$

33. $(7 - 3i)(2 - 5i) = \underline{\qquad\qquad}$

34. $(1 - 8i)(5 + 3i) = \underline{\qquad\qquad}$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ 7 + 17i

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ____________

$= 3 + 12i$

33. $(7 - 3i)(2 - 5i) =$ ____________

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

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31. $(2 + 3i)(5 + i) = \underline{\quad 7 + 17i \quad}$

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) = \underline{\qquad\qquad}$

$= 3 + 12i$

33. $(7 - 3i)(2 - 5i) = \underline{\qquad\qquad}$

34. $(1 - 8i)(5 + 3i) = \underline{\qquad\qquad}$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ___________

$= 3 + 12i - 7i$

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ___________

$= 3 + 12i - 7i$

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ <u>$7 + 17i$</u>

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ___________

$= 3 + 12i - 7i - 28i^2$

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ___________

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ___________

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ ____________

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ____________

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ __31__

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 – 7i)(1 + 4i) =$ __31 + 5i__

$= 3 + 12i – 7i – 28i^2 =$

33. $(7 – 3i)(2 – 5i) =$ ____________

34. $(1 – 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ __31 + 5i__

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ___________

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ __31 + 5i__

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ____________

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ____________

$=$

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ __31 + 5i__

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ___________

$= 14$

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ $\underline{\quad 7 + 17i \quad}$

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ $\underline{\quad 31 + 5i \quad}$

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ __________

$= 14$

34. $(1 - 8i)(5 + 3i) =$ __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ____________

$= 14 - 35i$

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Perform the indicated operations. Express complex answers in a + bi form.

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$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ $\underline{\quad 31 + 5i \quad}$

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ___________

$= 14 - 35i$

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ____________

$= 14 - 35i - 6i$

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ___________

$= 14 - 35i - 6i$

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ <u>**7 + 17i**</u>

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ <u>**31 + 5i**</u>

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ___________

$= 14 - 35i - 6i + 15i^2$

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ __31 + 5i__

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ___________

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ____________

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ ____________

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ __31 + 5i__

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ __-1__________

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ **-1**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ __31 + 5i__

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ __-1 – 41i__

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ __31 + 5i__

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ __-1 – 41i__

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ **-1 – 41i**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ **-1 – 41i**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

$=$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ **-1 – 41i**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

$= 5$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ **-1 – 41i**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

$= 5$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __**7 + 17i**__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ __**31 + 5i**__

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ __**-1 – 41i**__

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ __________

$= 5 + 3i$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ **-1 – 41i**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ __________

$= 5 + 3i$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ **-1 – 41i**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ __________

$= 5 + 3i - 40i$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ **-1 – 41i**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ __________

$= 5 + 3i - 40i$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ **7 + 17i**

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ **-1 – 41i**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

$= 5 + 3i - 40i - 24i^2$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __$7 + 17i$__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ __$31 + 5i$__

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ __$-1 - 41i$__

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

$= 5 + 3i - 40i - 24i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ __31 + 5i__

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ __-1 – 41i__

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ ____________

$= 5 + 3i - 40i - 24i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

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$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ **-1 – 41i**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ __________

$= 5 + 3i - 40i - 24i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ <u>7 + 17i</u>

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ <u>31 + 5i</u>

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ <u>-1 – 41i</u>

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ <u>29</u>

$= 5 + 3i - 40i - 24i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ __7 + 17i__

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 – 7i)(1 + 4i) =$ __31 + 5i__

$= 3 + 12i – 7i – 28i^2 =$

33. $(7 – 3i)(2 – 5i) =$ __-1 – 41i__

$= 14 – 35i – 6i + 15i^2 =$

34. $(1 – 8i)(5 + 3i) =$ __29__

$= 5 + 3i – 40i – 24i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

31. $(2 + 3i)(5 + i) =$ $\underline{\quad 7 + 17i \quad}$

$= 10 + 2i + 15i + 3i^2 =$

32. $(3 - 7i)(1 + 4i) =$ $\underline{\quad 31 + 5i \quad}$

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ $\underline{\quad -1 - 41i \quad}$

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ $\underline{\quad 29 - 37i \quad}$

$= 5 + 3i - 40i - 24i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

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32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

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33. $(7 - 3i)(2 - 5i) =$ **-1 – 41i**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ **29 – 37i**

$= 5 + 3i - 40i - 24i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

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32. $(3 - 7i)(1 + 4i) =$ **31 + 5i**

$= 3 + 12i - 7i - 28i^2 =$

33. $(7 - 3i)(2 - 5i) =$ **-1 – 41i**

$= 14 - 35i - 6i + 15i^2 =$

34. $(1 - 8i)(5 + 3i) =$ **29 – 37i**

$= 5 + 3i - 40i - 24i^2 =$

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

$=$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

$= 64$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

$= 64$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

$= 64 - 40i$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

$= 64 - 40i$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

$= 64 - 40i + 40i$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

$= 64 - 40i + 40i$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

$= 64 - 40i + 40i - 25i^2$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___________

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) = \underline{\quad 89 \quad}$

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ __89__

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ____________

37. $(6 - 4i)(2 - 3i) =$ ____________

38. $(1 - i)(1 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ __89 + 0i__

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ ___**89**___

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ____________

37. $(6 - 4i)(2 - 3i) =$ ____________

38. $(1 - i)(1 + 3i) =$ ____________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

$=$

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ____________

$= 4$

37. $(6 - 4i)(2 - 3i) =$ ____________

38. $(1 - i)(1 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ____________

$= 4$

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When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ____________

$= 4 + 2i$

37. $(6 - 4i)(2 - 3i) =$ ____________

38. $(1 - i)(1 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ____________

$= 4 + 2i$

37. $(6 - 4i)(2 - 3i) =$ ____________

38. $(1 - i)(1 + 3i) =$ ____________

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

$= 4 + 2i - 2i$

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

$= 4 + 2i - 2i$

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

$= 4 + 2i - 2i - i^2$

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

$= 4 + 2i - 2i - i^2 =$

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ___________

$= 4 + 2i - 2i - i^2 =$

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ ____________

$= 4 + 2i - 2i - i^2 =$

37. $(6 - 4i)(2 - 3i) =$ ____________

38. $(1 - i)(1 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ 89

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ 5

$= 4 + 2i - 2i - i^2 =$

37. $(6 - 4i)(2 - 3i) =$ ___________

38. $(1 - i)(1 + 3i) =$ ___________

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$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ **5 + 0i**

$= 4 + 2i - 2i - i^2 =$

37. $(6 - 4i)(2 - 3i) =$ ____________

38. $(1 - i)(1 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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37. $(6 - 4i)(2 - 3i) =$ ___________

$=$

38. $(1 - i)(1 + 3i) =$ ___________

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36. $(-2 + i)(-2 - i) =$ **5**

$= 4 + 2i - 2i - i^2 =$

37. $(6 - 4i)(2 - 3i) =$ __________

$= 12$

38. $(1 - i)(1 + 3i) =$ __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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37. $(6 - 4i)(2 - 3i) =$ __________

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38. $(1 - i)(1 + 3i) =$ __________

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37. $(6 - 4i)(2 - 3i) =$ __________

$= 12 - 18i$

38. $(1 - i)(1 + 3i) =$ __________

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37. $(6 - 4i)(2 - 3i) =$ __________

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36. $(-2 + i)(-2 - i) =$ **5**

$= 4 + 2i - 2i - i^2 =$

37. $(6 - 4i)(2 - 3i) =$ **0**

$= 12 - 18i - 8i + 12i^2 =$

38. $(1 - i)(1 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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37. $(6 - 4i)(2 - 3i) =$ 0

$= 12 - 18i - 8i + 12i^2 =$

38. $(1 - i)(1 + 3i) =$ ________

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$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ **5**

$= 4 + 2i - 2i - i^2 =$

37. $(6 - 4i)(2 - 3i) =$ **0 – 26i**

$= 12 - 18i - 8i + 12i^2 =$

38. $(1 - i)(1 + 3i) =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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37. $(6 - 4i)(2 - 3i) =$ **-26i**

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38. $(1 - i)(1 + 3i) =$ __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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38. $(1 - i)(1 + 3i) =$ __________

$=$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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$= 12 - 18i - 8i + 12i^2 =$

38. $(1 - i)(1 + 3i) =$ ____________

$= 1$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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38. $(1 - i)(1 + 3i) =$ ____________

$= 1 + 3i$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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38. $(1 - i)(1 + 3i) =$ ____________

$= 1 + 3i - i$

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38. $(1 - i)(1 + 3i) =$ ________

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When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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38. $(1 - i)(1 + 3i) =$ __________

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37. $(6 - 4i)(2 - 3i) =$ __-26i__

$= 12 - 18i - 8i + 12i^2 =$

38. $(1 - i)(1 + 3i) =$ __4__

$= 1 + 3i - i - 3i^2 =$

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37. $(6 - 4i)(2 - 3i) =$ **-26i**

$= 12 - 18i - 8i + 12i^2 =$

38. $(1 - i)(1 + 3i) =$ **4 + 2i**

$= 1 + 3i - i - 3i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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35. $(8 + 5i)(8 - 5i) =$ __89__

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ __5__

$= 4 + 2i - 2i - i^2 =$

37. $(6 - 4i)(2 - 3i) =$ __-26i__

$= 12 - 18i - 8i + 12i^2 =$

38. $(1 - i)(1 + 3i) =$ __4 + 2i__

$= 1 + 3i - i - 3i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

35. $(8 + 5i)(8 - 5i) =$ **89**

$= 64 - 40i + 40i - 25i^2 =$

36. $(-2 + i)(-2 - i) =$ **5**

$= 4 + 2i - 2i - i^2 =$

37. $(6 - 4i)(2 - 3i) =$ **-26i**

$= 12 - 18i - 8i + 12i^2 =$

38. $(1 - i)(1 + 3i) =$ **4 + 2i**

$= 1 + 3i - i - 3i^2 =$

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

40. $(4 - 3i)^2 =$ ___________

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When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

$= (2 + 5i)(2 + 5i)$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

$= (2 + 5i)(2 + 5i) =$

$=$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

$= (2 + 5i)(2 + 5i) =$

$= 4$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

$= (2 + 5i)(2 + 5i) =$

$= 4$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ __________

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i$

40. $(4 - 3i)^2 =$ __________

41. $(-5 + i)^2 =$ __________

42. $(-3 - 2i)^2 =$ __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

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42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___________

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ __-21__________

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ __-21__________

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 = \underline{\ -21 + 20i\ }$

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ **-21 + 20i**

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___-21 + 20i___

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

41. $(-5 + i)^2 =$ ___________

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ **-21 + 20i**

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

$= (4 - 3i)(4 - 3i)$

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 = $ __-21 + 20i__

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 = $ ___________

$= (4 - 3i)(4 - 3i) =$

$=$

41. $(-5 + i)^2 = $ ___________

42. $(-3 - 2i)^2 = $ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ **-21 + 20i**

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ____________

$= (4 - 3i)(4 - 3i) =$

$= 16$

41. $(-5 + i)^2 =$ ____________

42. $(-3 - 2i)^2 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 = \underline{-21 + 20i}$

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ____________

$= (4 - 3i)(4 - 3i) =$

$= 16$

41. $(-5 + i)^2 =$ ____________

42. $(-3 - 2i)^2 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ <u>-21 + 20i</u>

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i$

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ **-21 + 20i**

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ____________

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i$

41. $(-5 + i)^2 =$ ____________

42. $(-3 - 2i)^2 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ **-21 + 20i**

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i$

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ **-21 + 20i**

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ____________

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i$

41. $(-5 + i)^2 =$ ____________

42. $(-3 - 2i)^2 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ $\underline{-21 + 20i}$

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2$

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ $\underline{-21 + 20i}$

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2 =$

41. $(-5 + i)^2 =$ ___________

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When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ ___-21 + 20i___

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ___________

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2 =$

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

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Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ $\underline{-21 + 20i}$

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ ____________

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2 =$

41. $(-5 + i)^2 =$ ____________

42. $(-3 - 2i)^2 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ __-21 + 20i__

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ __7________

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2 =$

41. $(-5 + i)^2 =$ __________

42. $(-3 - 2i)^2 =$ __________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 = \underline{\ -21 + 20i\ }$

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 = \underline{\ 7\qquad\qquad}$

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2 =$

41. $(-5 + i)^2 = \underline{\qquad\qquad}$

42. $(-3 - 2i)^2 = \underline{\qquad\qquad}$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ **-21 + 20i**

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ **7 – 24i**

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2 =$

41. $(-5 + i)^2 =$ ____________

42. $(-3 - 2i)^2 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ **-21 + 20i**

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ **7 – 24i**

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2 =$

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ __**-21 + 20i**__

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ __**7 – 24i**__

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2 =$

41. $(-5 + i)^2 =$ ___________

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ **-21 + 20i**

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ **7 – 24i**

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2 =$

41. $(-5 + i)^2 =$ ___________

$= (-5 + i)(-5 + i)$

42. $(-3 - 2i)^2 =$ ___________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

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39. $(2 + 5i)^2 =$ **-21 + 20i**

$= (2 + 5i)(2 + 5i) =$

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$= 25 - 5i - 5i + i^2 =$

42. $(-3 - 2i)^2 =$ **5**

$= (-3 - 2i)(-3 - 2i) =$

$= 9 + 6i + 6i + 4i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ __$-21 + 20i$__

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

40. $(4 - 3i)^2 =$ __$7 - 24i$__

$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2 =$

41. $(-5 + i)^2 =$ __$24 - 10i$__

$= (-5 + i)(-5 + i) =$

$= 25 - 5i - 5i + i^2 =$

42. $(-3 - 2i)^2 =$ __$5 + 12i$__

$= (-3 - 2i)(-3 - 2i) =$

$= 9 + 6i + 6i + 4i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 =$ **-21 + 20i**

$= (2 + 5i)(2 + 5i) =$

$= 4 + 10i + 10i + 25i^2 =$

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$= (4 - 3i)(4 - 3i) =$

$= 16 - 12i - 12i + 9i^2 =$

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$= (-5 + i)(-5 + i) =$

$= 25 - 5i - 5i + i^2 =$

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When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

39. $(2 + 5i)^2 = \underline{\ -21 + 20i\ }$

$= (2 + 5i)(2 + 5i) =$

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$= (-5 + i)(-5 + i) =$

$= 25 - 5i - 5i + i^2 =$

42. $(-3 - 2i)^2 = \underline{\ 5 + 12i\ }$

$= (-3 - 2i)(-3 - 2i) =$

$= 9 + 6i + 6i + 4i^2 =$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ __________

44. $(1 - 2i)^3 =$ __________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ __________

44. $(1 - 2i)^3 =$ __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 =$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i)$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$=$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ __________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i$

Square it first !!

44. $(1 - 2i)^3 =$ __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 =$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ __________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 =$

Square it first !!

44. $(1 - 2i)^3 =$ __________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 =$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the number i like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

Square it first !!

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 =$

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i)$

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ____________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$=$

44. $(1 - 2i)^3 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6$

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6$

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II   Class Worksheet #4   Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ____________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i$

44. $(1 - 2i)^3 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i$

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ____________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i + 3i$

44. $(1 - 2i)^3 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i + 3i$

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ____________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i + 3i + 4i^2$

44. $(1 - 2i)^3 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i + 3i + 4i^2 =$

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i + 3i + 4i^2 =$

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ ___________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i + 3i + 4i^2 =$

44. $(1 - 2i)^3 =$ ___________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ __2________

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i + 3i + 4i^2 =$

44. $(1 - 2i)^3 =$ __________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 = \underline{\quad 2 \qquad\qquad}$

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i + 3i + 4i^2 =$

44. $(1 - 2i)^3 = \underline{\qquad\qquad\qquad}$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 = \underline{\quad 2 + 11i \quad}$

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i + 3i + 4i^2 =$

44. $(1 - 2i)^3 = \underline{\qquad\qquad}$

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ __**2 + 11i**__

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i + 3i + 4i^2 =$

44. $(1 - 2i)^3 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ **2 + 11i**

$(2 + i)^2 = (2 + i)(2 + i) =$

$= 4 + 2i + 2i + i^2 = 3 + 4i$

$(2 + i)^3 = (2 + i)(3 + 4i) =$

$= 6 + 8i + 3i + 4i^2 =$

44. $(1 - 2i)^3 =$ ____________

When multiplying complex numbers, first treat the <u>number i</u> like a variable. Second, remember that i is not a variable. If you get i^2 as part of your answer, replace it with -1.

Note: since $i = \sqrt{-1}$, $i^2 = -1$.

Algebra II Class Worksheet #4 Unit 5

Perform the indicated operations. Express complex answers in a + bi form.

43. $(2 + i)^3 =$ **2 + 11i**

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