Algebra II
Lesson #5 Unit 5
Class Worksheet #5
For Worksheet #6

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} =$

2. $\frac{8}{4i} =$

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} =$

2. $\frac{8}{4i} =$

Division problems are written using fraction notation.

Algebra II   Class Worksheet #5   Unit 5

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

1. $\frac{8i}{4i} =$

2. $\frac{8}{4i} =$

Division problems are written using fraction notation. $\frac{n}{d} =$

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} =$

2. $\frac{8}{4i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} =$

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} =$

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

This problem involves dividing an imaginary number by an imaginary number.

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} =$

2. $\frac{8}{4i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

This problem involves dividing an imaginary number by an imaginary number. In problems like this, you should treat the imaginary number i like a variable.

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} =$

2. $\frac{8}{4i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

This problem involves dividing an imaginary number by an imaginary number. In problems like this, you should treat the imaginary number i like a variable. Since i is a factor of both terms, you can 'reduce' the fraction.

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} = \frac{8}{4}$

2. $\frac{8}{4i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

This problem involves dividing an imaginary number by an imaginary number. In problems like this, you should treat the imaginary number i like a variable. Since i is a factor of both terms, you can 'reduce' the fraction.

Algebra II   Class Worksheet #5   Unit 5

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

1. $\frac{8i}{4i} = \frac{8}{4} = 2$

2. $\frac{8}{4i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

This problem involves dividing an imaginary number by an imaginary number. In problems like this, you should treat the imaginary number i like a variable. Since i is a factor of both terms, you can 'reduce' the fraction.

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} = \frac{8}{4} = 2$

2. $\frac{8}{4i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

This problem involves dividing an imaginary number by an imaginary number. In problems like this, you should treat the imaginary number i like a variable. Since i is a factor of both terms, you can 'reduce' the fraction. An imaginary number divided by an imaginary number is a real number.

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} = \frac{8}{4} = 2$

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2. $\frac{8}{4i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

This problem involves dividing a real number by an imaginary number.

Algebra II Class Worksheet #5 Unit 5

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1. $\frac{8i}{4i} = \frac{8}{4} = 2$

2. $\frac{8}{4i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

This problem involves dividing a real number by an imaginary number. In problems like this, you must make the divisor, the denominator, a real number.

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} = \frac{8}{4} = 2$

2. $\frac{8}{4i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

This problem involves dividing a real number by an imaginary number. In problems like this, you must make the divisor, the denominator, a real number. Multiply both terms of the fraction by i.

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} = \frac{8}{4} = 2$

2. $\frac{8}{4i} = \frac{8i}{4i^2}$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

This problem involves dividing a real number by an imaginary number. In problems like this, you must make the divisor, the denominator, a real number. Multiply both terms of the fraction by i.

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

This problem involves dividing a real number by an imaginary number. In problems like this, you must make the divisor, the denominator, a real number. Multiply both terms of the fraction by i. Since $i^2 = -1$, the divisor is now a real number.

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} = \frac{8}{4} = 2$

2. $\frac{8}{4i} = \frac{8i}{4i^2} = \frac{8i}{-4}$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

This problem involves dividing a real number by an imaginary number. In problems like this, you must make the divisor, the denominator, a real number. Multiply both terms of the fraction by i. Since $i^2 = -1$, the divisor is now a real number.

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

This problem involves dividing a real number by an imaginary number. In problems like this, you must make the divisor, the denominator, a real number. Multiply both terms of the fraction by i. Since $i^2 = -1$, the divisor is now a real number. The division proceeds as if i was a variable.

Algebra II Class Worksheet #5 Unit 5

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

1. $\frac{8i}{4i} = \frac{8}{4} = 2$

2. $\frac{8}{4i} = \frac{8i}{4i^2} = \frac{8i}{-4} = -2i$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

This problem involves dividing a real number by an imaginary number. In problems like this, you must make the divisor, the denominator, a real number. Multiply both terms of the fraction by i. Since $i^2 = -1$, the divisor is now a real number. The division proceeds as if i was a variable.

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

This problem involves dividing a real number by an imaginary number. In problems like this, you must make the divisor, the denominator, a real number. Multiply both terms of the fraction by i. Since i2 = -1, the divisor is now a real number. The division proceeds as if i was a variable. A real number divided by an imaginary number is an imaginary number.

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

1. $\dfrac{8i}{4i} = \dfrac{8}{4} = 2$

2. $\dfrac{8}{4i} = \dfrac{8i}{4i^2} = \dfrac{8i}{-4} = -2i$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

Algebra II   Class Worksheet #5   Unit 5

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

3. $\frac{6 + 9i}{3} =$

4. $\frac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

Algebra II Class Worksheet #5 Unit 5

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

3. $\dfrac{6 + 9i}{3} =$

4. $\dfrac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d$.

Algebra II Class Worksheet #5 Unit 5

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

3. $\frac{6 + 9i}{3} =$

4. $\frac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number.

Algebra II Class Worksheet #5 Unit 5

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

3. $\dfrac{6 + 9i}{3} =$

4. $\dfrac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number.
In problems like these, the number i is treated as a variable.

Algebra II   Class Worksheet #5   Unit 5

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

3. $\dfrac{6 + 9i}{3} =$

4. $\dfrac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number. In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

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3. $\frac{6 + 9i}{3} =$

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number. In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

Algebra II Class Worksheet #5 Unit 5

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

3. $\dfrac{6 + 9i}{3} = \dfrac{6}{3}$

4. $\dfrac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

**These problems involve dividing a complex number by a real number.
In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.**

Algebra II Class Worksheet #5 Unit 5

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

3. $\dfrac{6 + 9i}{3} = \dfrac{6}{3} +$

4. $\dfrac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number. In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

Algebra II Class Worksheet #5 Unit 5

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

3. $\frac{6 + 9i}{3} = \frac{6}{3} + \frac{9i}{3}$

4. $\frac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number. In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

Algebra II Class Worksheet #5 Unit 5

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

3. $\frac{6 + 9i}{3} = \frac{6}{3} + \frac{9i}{3} =$

4. $\frac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number. In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

Algebra II Class Worksheet #5 Unit 5

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

3. $\frac{6 + 9i}{3} = \frac{6}{3} + \frac{9i}{3} = 2$

4. $\frac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number. In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

Algebra II Class Worksheet #5 Unit 5

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

3. $\frac{6 + 9i}{3} = \frac{6}{3} + \frac{9i}{3} = 2 +$

4. $\frac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number.
In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

Algebra II Class Worksheet #5 Unit 5

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

3. $\frac{6 + 9i}{3} = \frac{6}{3} + \frac{9i}{3} = 2 + 3i$

4. $\frac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number.
In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

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3. $\frac{6 + 9i}{3} = \frac{6}{3} + \frac{9i}{3} = 2 + 3i$

4. $\frac{4 - 9i}{6} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

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

3. $\dfrac{6 + 9i}{3} = \dfrac{6}{3} + \dfrac{9i}{3} = 2 + 3i$

4. $\dfrac{4 - 9i}{6} = \dfrac{4}{6}$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number.
In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

Algebra II Class Worksheet #5 Unit 5

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

3. $\frac{6 + 9i}{3} = \frac{6}{3} + \frac{9i}{3} = 2 + 3i$

4. $\frac{4 - 9i}{6} = \frac{4}{6} -$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number.
In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

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3. $\dfrac{6 + 9i}{3} = \dfrac{6}{3} + \dfrac{9i}{3} = 2 + 3i$

4. $\dfrac{4 - 9i}{6} = \dfrac{4}{6} - \dfrac{9i}{6}$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

**These problems involve dividing a complex number by a real number.
In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.**

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3. $\dfrac{6 + 9i}{3} = \dfrac{6}{3} + \dfrac{9i}{3} = 2 + 3i$

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Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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

3. $\frac{6 + 9i}{3} = \frac{6}{3} + \frac{9i}{3} = 2 + 3i$

4. $\frac{4 - 9i}{6} = \frac{4}{6} - \frac{9i}{6} = \frac{2}{3}$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number. In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

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3. $\frac{6 + 9i}{3} = \frac{6}{3} + \frac{9i}{3} = 2 + 3i$

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

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3. $\dfrac{6 + 9i}{3} = \dfrac{6}{3} + \dfrac{9i}{3} = 2 + 3i$

4. $\dfrac{4 - 9i}{6} = \dfrac{4}{6} - \dfrac{9i}{6} = \dfrac{2}{3} - \dfrac{3}{2}i$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a real number.
In problems like these, the number i is treated as a variable. Simply divide both terms of the complex number by the real number.

Algebra II Class Worksheet #5 Unit 5

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

3. $\frac{6 + 9i}{3} = \frac{6}{3} + \frac{9i}{3} = 2 + 3i$

4. $\frac{4 - 9i}{6} = \frac{4}{6} - \frac{9i}{6} = \frac{2}{3} - \frac{3}{2}i$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

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3. $\frac{6 + 9i}{3} = \frac{6}{3} + \frac{9i}{3} = 2 + 3i$

4. $\frac{4 - 9i}{6} = \frac{4}{6} - \frac{9i}{6} = \frac{2}{3} - \frac{3}{2}i$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

Algebra II Class Worksheet #5 Unit 5

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

5. $\dfrac{4 - 8i}{4i} =$

6. $\dfrac{4 - 2i}{-2i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

Algebra II Class Worksheet #5 Unit 5

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

5. $\frac{4 - 8i}{4i} =$

6. $\frac{4 - 2i}{-2i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

Algebra II Class Worksheet #5 Unit 5

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

5. $\dfrac{4 - 8i}{4i} =$

6. $\dfrac{4 - 2i}{-2i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number.

Algebra II Class Worksheet #5 Unit 5

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

5. $\dfrac{4 - 8i}{4i} =$

6. $\dfrac{4 - 2i}{-2i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number.

Algebra II Class Worksheet #5 Unit 5

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

5. $\dfrac{4 - 8i}{4i} =$

6. $\dfrac{4 - 2i}{-2i} =$

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5. $\frac{4 - 8i}{4i} =$

6. $\frac{4 - 2i}{-2i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions.

Algebra II Class Worksheet #5 Unit 5

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

5. $\dfrac{4 - 8i}{4i} = \dfrac{i(4 - 8i)}{4i^2} =$

6. $\dfrac{4 - 2i}{-2i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d$.

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions.

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5. $\dfrac{4 - 8i}{4i} = \dfrac{i(4 - 8i)}{4i^2} =$

6. $\dfrac{4 - 2i}{-2i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$.

Algebra II Class Worksheet #5 Unit 5

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

5. $\dfrac{4 - 8i}{4i} = \dfrac{i(4 - 8i)}{4i^2} =$

$= \dfrac{\quad}{-4}$

6. $\dfrac{4 - 2i}{-2i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$.

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

5. $\dfrac{4 - 8i}{4i} = \dfrac{i(4 - 8i)}{4i^2} =$

$= \dfrac{4i - 8i^2}{-4}$

6. $\dfrac{4 - 2i}{-2i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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

5. $\frac{4-8i}{4i} = \frac{i(4-8i)}{4i^2} =$

$= \frac{4i-8i^2}{-4} = \frac{4i+8}{-4}$

6. $\frac{4-2i}{-2i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$.

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

5. $\frac{4-8i}{4i} = \frac{i(4-8i)}{4i^2} =$

$= \frac{4i-8i^2}{-4} = \frac{4i+8}{-4} =$

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

5. $\frac{4 - 8i}{4i} = \frac{i(4 - 8i)}{4i^2} =$

$= \frac{4i - 8i^2}{-4} = \frac{4i + 8}{-4} =$

6. $\frac{4 - 2i}{-2i} =$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form and complete the division.

Algebra II Class Worksheet #5 Unit 5

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

5. $\dfrac{4-8i}{4i} = \dfrac{i(4-8i)}{4i^2} =$

$= \dfrac{4i-8i^2}{-4} = \dfrac{4i+8}{-4} =$

$= \dfrac{8+4i}{-4}$

6. $\dfrac{4-2i}{-2i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form and complete the division.

Algebra II Class Worksheet #5 Unit 5

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

5. $\dfrac{4 - 8i}{4i} = \dfrac{i(4 - 8i)}{4i^2} =$

$= \dfrac{4i - 8i^2}{-4} = \dfrac{4i + 8}{-4} =$

$= \dfrac{8 + 4i}{-4} =$

6. $\dfrac{4 - 2i}{-2i} =$

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$= \frac{}{2}$

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These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form

Algebra II Class Worksheet #5 Unit 5

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$$= \frac{4i - 8i^2}{-4} = \frac{4i + 8}{-4} =$$

$$= \frac{8 + 4i}{-4} = -2 - i$$

6. $$\frac{4 - 2i}{-2i} = \frac{i(4 - 2i)}{-2i^2} =$$

$$= \frac{4i - 2i^2}{2} = \frac{4i + 2}{2} =$$

$$= \frac{2 + 4i}{2}$$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form

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Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d$.

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form and complete the division.

Algebra II   Class Worksheet #5   Unit 5

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

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6. $\frac{4 - 2i}{-2i} = \frac{i(4 - 2i)}{-2i^2} =$

$= \frac{4i - 2i^2}{2} = \frac{4i + 2}{2} =$

$= \frac{2 + 4i}{2} = 1$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form and complete the division.

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$= \dfrac{4i - 2i^2}{2} = \dfrac{4i + 2}{2} =$

$= \dfrac{2 + 4i}{2} = 1 + 2i$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form and complete the division.

Algebra II Class Worksheet #5 Unit 5

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

5. $$\frac{4-8i}{4i} = \frac{i(4-8i)}{4i^2} =$$

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$$= \frac{4i-2i^2}{2} = \frac{4i+2}{2} =$$

$$= \frac{2+4i}{2} = 1 + 2i$$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form and complete the division. A complex number divided by an imaginary number is a complex number.

Algebra II Class Worksheet #5 Unit 5

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

5. $\frac{4 - 8i}{4i} = \frac{i(4 - 8i)}{4i^2} =$

$= \frac{4i - 8i^2}{-4} = \frac{4i + 8}{-4} =$

$= \frac{8 + 4i}{-4} = -2 - i$

6. $\frac{4 - 2i}{-2i} = \frac{i(4 - 2i)}{-2i^2} =$

$= \frac{4i - 2i^2}{2} = \frac{4i + 2}{2} =$

$= \frac{2 + 4i}{2} = 1 + 2i$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number.

Algebra II Class Worksheet #5 Unit 5

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

7. $\dfrac{5 + 6i}{-3i} =$

8. $\dfrac{3 + 7i}{3i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number.

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

7. $\frac{5 + 6i}{-3i} =$

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

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7. $\frac{5 + 6i}{-3i} =$

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

7. $\dfrac{5 + 6i}{-3i} = \dfrac{i(5 + 6i)}{-3i^2}$

8. $\dfrac{3 + 7i}{3i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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

7. $\dfrac{5 + 6i}{-3i} = \dfrac{i(5 + 6i)}{-3i^2} =$

$=$

8. $\dfrac{3 + 7i}{3i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d$.

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

7. $\dfrac{5 + 6i}{-3i} = \dfrac{i(5 + 6i)}{-3i^2} =$

$= \dfrac{\quad}{3} =$

8. $\dfrac{3 + 7i}{3i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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

7. $\frac{5 + 6i}{-3i} = \frac{i(5 + 6i)}{-3i^2} =$

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7. $\dfrac{5 + 6i}{-3i} = \dfrac{i(5 + 6i)}{-3i^2} =$

$= \dfrac{5i + 6i^2}{3} = \dfrac{5i - 6}{3}$

8. $\dfrac{3 + 7i}{3i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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$= \dfrac{-6 + 5i}{3} = -2 + \dfrac{5}{3}i$

8. $\dfrac{3 + 7i}{3i} = \dfrac{i(3 + 7i)}{3i^2} =$

$=$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$.

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

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$= \dfrac{5i + 6i^2}{3} = \dfrac{5i - 6}{3} =$

$= \dfrac{-6 + 5i}{3} = -2 + \dfrac{5}{3}i$

8. $\dfrac{3 + 7i}{3i} = \dfrac{i(3 + 7i)}{3i^2} =$

$= \dfrac{\quad}{-3}$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$.

Algebra II Class Worksheet #5 Unit 5

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

7. $\dfrac{5 + 6i}{-3i} = \dfrac{i(5 + 6i)}{-3i^2} =$

$= \dfrac{5i + 6i^2}{3} = \dfrac{5i - 6}{3} =$

$= \dfrac{-6 + 5i}{3} = -2 + \dfrac{5}{3}i$

8. $\dfrac{3 + 7i}{3i} = \dfrac{i(3 + 7i)}{3i^2} =$

$= \dfrac{3i + 7i^2}{-3} =$

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$= \dfrac{3i + 7i^2}{-3} = \dfrac{3i - 7}{-3}$

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$=$

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form

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Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form and complete the division.

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$= \dfrac{-7 + 3i}{-3} = \dfrac{7}{3}$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form and complete the division.

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form and complete the division.

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Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by an imaginary number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by i and simplify the resulting expressions. Remember that $i^2 = -1$. Express the complex number in the numerator in a + bi form and complete the division. A complex number divided by an imaginary number is a complex number.

Algebra II Class Worksheet #5 Unit 5

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

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Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

Algebra II Class Worksheet #5 Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} =$

10. $\dfrac{17 + i}{3 - i} =$

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

Algebra II Class Worksheet #5 Unit 5

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

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Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number.

Algebra II Class Worksheet #5 Unit 5

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

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number.

Algebra II   Class Worksheet #5   Unit 5

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Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the complex conjugate of the divisor

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a + bi

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a + bi and a – bi

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

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10. $\frac{17 + i}{3 - i} =$

a + bi and a – bi are complex conjugates of each other.

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

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a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

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Algebra II Class Worksheet #5 Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{\qquad}{(4 + 3i)(4 - 3i)}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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Algebra II Class Worksheet #5 Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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9. $\frac{6 + 17i}{4 + 3i} = \frac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$=$

10. $\frac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

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$= \underline{\qquad\qquad\qquad}$

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9. $\frac{6 + 17i}{4 + 3i} = \frac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \frac{\qquad}{16}$

10. $\frac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the complex conjugate of the divisor and simplify the resulting expressions.

Algebra II Class Worksheet #5 Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{\qquad\qquad}{16}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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Algebra II Class Worksheet #5 Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{}{16 - 12i}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex</u> <u>conjugate</u> of the divisor and simplify the resulting expressions.

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{\qquad}{16 - 12i}$

10. $\dfrac{17 + i}{3 - i} =$

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Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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Algebra II   Class Worksheet #5   Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{\qquad}{16 - 12i + 12i}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{\quad}{16 - 12i + 12i}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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Algebra II Class Worksheet #5 Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{\quad}{16 - 12i + 12i - 9i^2}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex</u> <u>conjugate</u> of the divisor and simplify the resulting expressions.

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{\quad}{16 - 12i + 12i - 9i^2}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex</u> <u>conjugate</u> of the divisor and simplify the resulting expressions.

Algebra II Class Worksheet #5 Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{24}{16 - 12i + 12i - 9i^2}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex</u> <u>conjugate</u> of the divisor and simplify the resulting expressions.

Algebra II Class Worksheet #5 Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{24}{16 - 12i + 12i - 9i^2}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex conjugate</u> of the divisor and simplify the resulting expressions.

Algebra II Class Worksheet #5 Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{24 - 18i}{16 - 12i + 12i - 9i^2}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d$.

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex</u> <u>conjugate</u> of the divisor and simplify the resulting expressions.

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{24 - 18i}{16 - 12i + 12i - 9i^2}$

10. $\dfrac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex conjugate</u> of the divisor and simplify the resulting expressions.

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

9. $\frac{6 + 17i}{4 + 3i} = \frac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \frac{24 - 18i + 68i}{16 - 12i + 12i - 9i^2}$

10. $\frac{17 + i}{3 - i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

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These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex</u> <u>conjugate</u> of the divisor and simplify the resulting expressions. Remember that $i^2 = -1$.

Algebra II Class Worksheet #5 Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

$= \dfrac{24 - 18i + 68i - 51i^2}{16 - 12i + 12i - 9i^2} =$

$= \dfrac{75 + 50i}{25} = 3 + 2i$

10. $\dfrac{17 + i}{3 - i} = \dfrac{(17 + i)(3 + i)}{(3 - i)(3 + i)} =$

$= \dfrac{51 + 17i + 3i + i^2}{9 + 3i - 3i - i^2} =$

$= \dfrac{50 + 20i}{10}$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d$.

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the complex conjugate of the divisor and simplify the resulting expressions. Remember that $i^2 = -1$.

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10. $$\frac{17 + i}{3 - i} = \frac{(17 + i)(3 + i)}{(3 - i)(3 + i)} =$$

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$$= \frac{50 + 20i}{10} =$$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the complex conjugate of the divisor and simplify the resulting expressions. Remember that $i^2 = -1$. Now that the divisor is a real number, you can complete the division process.

Algebra II Class Worksheet #5 Unit 5

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

9. $$\frac{6 + 17i}{4 + 3i} = \frac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} = \frac{24 - 18i + 68i - 51i^2}{16 - 12i + 12i - 9i^2} = \frac{75 + 50i}{25} = 3 + 2i$$

10. $$\frac{17 + i}{3 - i} = \frac{(17 + i)(3 + i)}{(3 - i)(3 + i)} = \frac{51 + 17i + 3i + i^2}{9 + 3i - 3i - i^2} = \frac{50 + 20i}{10} = 5$$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the complex conjugate of the divisor and simplify the resulting expressions. Remember that $i^2 = -1$. Now that the divisor is a real number, you can complete the division process.

Algebra II   Class Worksheet #5   Unit 5

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

9. $\dfrac{6 + 17i}{4 + 3i} = \dfrac{(6 + 17i)(4 - 3i)}{(4 + 3i)(4 - 3i)} =$

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$= \dfrac{75 + 50i}{25} = 3 + 2i$

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$= \dfrac{51 + 17i + 3i + i^2}{9 + 3i - 3i - i^2} =$

$= \dfrac{50 + 20i}{10} = 5 + 2i$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

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Algebra II Class Worksheet #5 Unit 5

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10. $\dfrac{17 + i}{3 - i} = \dfrac{(17 + i)(3 + i)}{(3 - i)(3 + i)} =$

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a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number.

Algebra II Class Worksheet #5 Unit 5

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

11. $\frac{-13 - 13i}{2 - 3i} =$

12. $\frac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number.

Algebra II Class Worksheet #5 Unit 5

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

11. $\frac{-13 - 13i}{2 - 3i} =$

12. $\frac{22 - 7i}{3 + 2i} =$

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11. $\frac{-13 - 13i}{2 - 3i} =$

12. $\frac{22 - 7i}{3 + 2i} =$

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Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex</u> <u>conjugate</u> of the divisor

Algebra II Class Worksheet #5 Unit 5

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

11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{\quad}{(2 - 3i)(2 + 3i)}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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Algebra II Class Worksheet #5 Unit 5

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

11. $\frac{-13 - 13i}{2 - 3i} = \frac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)}$

12. $\frac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

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11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \dfrac{\qquad\qquad}{}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex</u> <u>conjugate</u> of the divisor and simplify the resulting expressions.

Algebra II Class Worksheet #5 Unit 5

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

11. $\frac{-13 - 13i}{2 - 3i} = \frac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \underline{\qquad\qquad\qquad\qquad}$

12. $\frac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\frac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex</u> <u>conjugate</u> of the divisor and simplify the resulting expressions.

Algebra II Class Worksheet #5 Unit 5

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

11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \dfrac{}{4}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the complex conjugate of the divisor and simplify the resulting expressions.

Algebra II Class Worksheet #5 Unit 5

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

11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \dfrac{\qquad\qquad}{4}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the complex conjugate of the divisor and simplify the resulting expressions.

Algebra II Class Worksheet #5 Unit 5

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

11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \dfrac{\qquad}{4 + 6i}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d}$ = n ÷ d.

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex</u> <u>conjugate</u> of the divisor and simplify the resulting expressions.

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

11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

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11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \dfrac{\qquad\qquad}{4 + 6i - 6i}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

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

11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \dfrac{\quad}{4 + 6i - 6i - 9i^2}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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Algebra II Class Worksheet #5 Unit 5

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

11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \dfrac{-26}{4 + 6i - 6i - 9i^2}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

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

11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \dfrac{-26}{4 + 6i - 6i - 9i^2}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

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

11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \dfrac{-26 - 39i}{4 + 6i - 6i - 9i^2}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

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12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

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Algebra II Class Worksheet #5 Unit 5

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

11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \dfrac{-26 - 39i - 26i}{4 + 6i - 6i - 9i^2}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d$.

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

11. $\frac{-13 - 13i}{2 - 3i} = \frac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

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12. $\frac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

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11. $\frac{-13 - 13i}{2 - 3i} = \frac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \frac{-26 - 39i - 26i - 39i^2}{4 + 6i - 6i - 9i^2}$

12. $\frac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\frac{n}{d} = n \div d$.

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$= \underline{\qquad\qquad}$

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a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d.$

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the <u>complex</u> <u>conjugate</u> of the divisor and simplify the resulting expressions. Remember that $i^2 = -1$.

Algebra II Class Worksheet #5 Unit 5

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11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

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$= \dfrac{}{}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are <u>complex</u> <u>conjugates</u> of each other. The product of a complex number and its complex conjugate is always a real number.

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$= \dfrac{-26 - 39i - 26i - 39i^2}{4 + 6i - 6i - 9i^2} =$

$= \dfrac{\quad}{13}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

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↑ ↑

$= \dfrac{}{13}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

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$= \dfrac{-26 - 39i - 26i - 39i^2}{4 + 6i - 6i - 9i^2} =$

$= \dfrac{\qquad}{13 + 0i}$

12. $\dfrac{22 - 7i}{3 + 2i} =$

a + bi and a – bi are complex conjugates of each other. The product of a complex number and its complex conjugate is always a real number.

Division problems are written using fraction notation. $\dfrac{n}{d} = n \div d$.

These problems involve dividing a complex number by a complex number. In problems like these, you must make the divisor a real number. Multiply both terms of the fraction by the complex conjugate of the divisor and simplify the resulting expressions. Remember that $i^2 = -1$.

Algebra II   Class Worksheet #5   Unit 5

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

11. $\dfrac{-13 - 13i}{2 - 3i} = \dfrac{(-13 - 13i)(2 + 3i)}{(2 - 3i)(2 + 3i)} =$

$= \dfrac{-26 - 39i - 26i - 39i^2}{4 + 6i - 6i - 9i^2} =$

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12. $\dfrac{22 - 7i}{3 + 2i} =$

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12. $$\frac{22 - 7i}{3 + 2i} = \frac{\qquad}{(3 + 2i)(3 - 2i)}$$

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13. $\dfrac{3 + 5i}{1 - 2i} =$

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13. $\dfrac{3 + 5i}{1 - 2i} = \dfrac{\quad}{(1 - 2i)(1 + 2i)}$

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Algebra II Class Worksheet #5 Unit 5

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

13. $$\frac{3 + 5i}{1 - 2i} = \frac{(3 + 5i)(1 + 2i)}{(1 - 2i)(1 + 2i)} =$$

$$= \frac{\qquad\qquad}{1 + 2i}$$

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↑ ↑

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13. $\dfrac{3 + 5i}{1 - 2i} = \dfrac{(3 + 5i)(1 + 2i)}{(1 - 2i)(1 + 2i)} =$

$= \dfrac{3 + 6i + 5i + 10i^2}{1 + 2i - 2i - 4i^2} =$

$= \dfrac{-7 + 11i}{5} = \dfrac{-7}{5} + \dfrac{11}{5}i$

14. $\dfrac{4 - i}{1 + 3i} = \dfrac{(4 - i)(1 - 3i)}{(1 + 3i)(1 - 3i)} =$

$= \dfrac{4 - 12i - i + 3i^2}{1 - 3i + 3i - 9i^2} =$

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$= \dfrac{5i - 10i^2}{1 - 2i + 2i - 4i^2} = \dfrac{}{5}$

18. $\dfrac{-2i}{3 - i} =$

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Algebra II Class Worksheet #5 Unit 5

Write the multiplicative inverse of each of the following using a + bi form.

19. $4 + 3i$

20. $3 - i$

Algebra II Class Worksheet #5 Unit 5

Write the multiplicative inverse of each of the following using a + bi form.

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The multiplicative inverse of the real number k is $\frac{1}{k}$. (k can not be zero.)

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$$\frac{1}{4+3i} = \frac{\quad}{(4+3i)(4-3i)}$$

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$$= \frac{}{16}$$

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$$= \frac{\qquad}{16 - 12i + 12i}$$

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