Algebra II Lesson #3 Unit 6 Class Worksheet #3 For Worksheet #4

Consider the equations below.

$$x^2 = 9$$
 $x^2 = 49$ $x^2 = 400$

Consider the equations below.

$$x^2 = 9$$
 $x^2 = 49$ $x^2 = 400$

Consider the equations below.

$$x^2 = 9$$
 $x^2 = 49$ $x^2 = 400$
Each of these equations has 2 solutions.

Consider the equations below.

 $x^{2} = 9$ x = 3Each of these equations has 2 solutions.

Consider the equations below.



Consider the equations below.

$$x^{2} = 9$$
 $x^{2} = 49$ $x^{2} = 400$
 $x = 3 \text{ or}$
 $\sqrt{9}$

Consider the equations below.

 $x^{2} = 9$ x = 3 or x = -3 $\sqrt{9}$ $x^{2} = 49$ $x^{2} = 400$

Consider the equations below.

$$x^{2} = 9$$

 $x = 3 \text{ or } x = -3$
 $\sqrt{9} -\sqrt{9}$
 $x^{2} = 49$
 $x^{2} = 400$

Consider the equations below.

 $x^{2} = 9$ x = 3 or x = -3 $\sqrt{9}$ $-\sqrt{9}$ $x^{2} = 49$ $x^{2} = 400$

Consider the equations below.

 $x^{2} = 9$ x = 3 or x = -3 $\sqrt{9}$ $\sqrt{9}$

Consider the equations below.



Consider the equations below.



Consider the equations below.



Consider the equations below.

Consider the equations below.

 $x^{2} = 9$ $x^{2} = 49$ $x^{2} = 49$ $x^{2} = 400$ x = 3 or x = -3 4 or x = 7 or x = -7 4 or x = -7

Consider the equations below.



Consider the equations below.



Consider the equations below.



Consider the equations below.



Consider the equations below.



Consider the equations below.



Consider the equations below.



Each of these equations has 2 solutions. These equations take the form $x^2 = k$.

Consider the equations below.



Each of these equations has 2 solutions. These equations take the form $x^2 = k$.

The Square Root Property

Consider the equations below.



Each of these equations has 2 solutions. These equations take the form $x^2 = k$. <u>The Square Root Property</u> If $x^2 = k$,

Consider the equations below.



Each of these equations has 2 solutions. These equations take the form $x^2 = k$.

The Square Root Property If $x^2 = k$, then $x = \sqrt{k}$

Consider the equations below.



Each of these equations has 2 solutions. These equations take the form $x^2 = k$.

The Square Root Property If $x^2 = k$, then $x = \sqrt{k}$ or $x = -\sqrt{k}$.

Consider the equations below.

 $x^2 = 9$ $x^2 = 49$ $x^2 = 400$

 x = 3 or x = -3 x = 7 or x = -7 x = 20 or x = -20

 \uparrow \uparrow \uparrow \uparrow \uparrow
 $\sqrt{9}$ $-\sqrt{9}$ $\sqrt{49}$ $-\sqrt{49}$ $\sqrt{400}$ $-\sqrt{400}$

Each of these equations has 2 solutions. These equations take the form $x^2 = k$.

<u>The Square Root Property</u> If $x^2 = k$, then $x = \sqrt{k}$ or $x = -\sqrt{k}$.

This can also be written as

Consider the equations below.

Each of these equations has 2 solutions. These equations take the form $x^2 = k$.

The Square Root Property If $x^2 = k$, then $x = \sqrt{k}$ or $x = -\sqrt{k}$.

This can also be written as $x = \pm$

Consider the equations below.

 $x^2 = 9$ $x^2 = 49$ $x^2 = 400$

 x = 3 or x = -3 x = 7 or x = -7 x = 20 or x = -20

 \uparrow \uparrow \uparrow \uparrow \uparrow
 $\sqrt{9}$ $-\sqrt{9}$ $\sqrt{49}$ $-\sqrt{49}$ $\sqrt{400}$ $-\sqrt{400}$

Each of these equations has 2 solutions. These equations take the form $x^2 = k$.

The Square Root Property If $x^2 = k$, then $x = \sqrt{k}$ or $x = -\sqrt{k}$. This can also be written as $x = \pm \sqrt{k}$.

Consider the equations below.

Each of these equations has 2 solutions. These equations take the form $x^2 = k$.

The Square Root Property If $x^2 = k$, then $x = \sqrt{k}$ or $x = -\sqrt{k}$. This can also be written as $x = \pm \sqrt{k}$. **The Square Root Property** If $x^2 = k$, then $x = \pm \sqrt{k}$.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Consider the following cases.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Consider the following cases.

Case 1:

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Consider the following cases.

Case 1: k < 0.
The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0,

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. k = -5

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>.

 $k = -5 \longrightarrow If x^2 = -5,$

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>.

 $k = -5 \longrightarrow$ If $x^2 = -5$, then $x = \pm \sqrt{-5}$.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>.

 $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm$

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$.

Case 2:

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow \text{If } x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5} \text{ i.}$ Case 2: k = 0.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow \text{If } x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5} \text{ i.}$ Case 2: k = 0. If $x^2 = 0$, then

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow \text{If } x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5} \text{ i.}$ Case 2: k = 0. If $x^2 = 0$, then x = 0.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3:

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.) Case 3: k > 0.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} . \longrightarrow x = \pm \sqrt{5} i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.) Case 3: k > 0. In general, if k > 0,

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.) Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5}$. $\longrightarrow x = \pm \sqrt{5}i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.) Case 3: k > 0. In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>. If k is a perfect square,

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} . \longrightarrow x = \pm \sqrt{5} i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.) Case 3: k > 0. In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions are imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} . \longrightarrow x = \pm \sqrt{5} i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.) Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $\mathbf{k} = \mathbf{9}$

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions are imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.) Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k=9 \quad \longrightarrow \quad \text{If } x^2=9,$

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

k = 9 \longrightarrow If $x^2 = 9$, then $x = \pm \sqrt{9}$.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} . \longrightarrow x = \pm \sqrt{5} i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.) Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k = 9 \longrightarrow If x^2 = 9$, then $x = \pm \sqrt{9}$. $\longrightarrow x =$

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \therefore x = \pm \sqrt{5}i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k = 9 \longrightarrow If x^2 = 9$, then $x = \pm \sqrt{9}$. $\longrightarrow x = \pm 3$.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k = 9 \longrightarrow If x^2 = 9$, then $x = \pm \sqrt{9}$. $\longrightarrow x = \pm 3$.

If k is not a perfect square,

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$. Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

k = 9 \longrightarrow If $x^2 = 9$, then $x = \pm \sqrt{9}$. \longrightarrow $x = \pm 3$.

If k is not a perfect square, then the solutions are irrational numbers.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$.

Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k = 9 \longrightarrow If x^2 = 9$, then $x = \pm \sqrt{9}$. $\longrightarrow x = \pm 3$.

If k is not a perfect square, then the solutions are irrational numbers. They can be written using standard radical form.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$.

Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k = 9 \longrightarrow If x^2 = 9$, then $x = \pm \sqrt{9}$. $\longrightarrow x = \pm 3$.

If k is not a perfect square, then the solutions are irrational numbers. They can be written using standard radical form or approximated.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$.

Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k = 9 \longrightarrow If x^2 = 9$, then $x = \pm \sqrt{9}$. $\longrightarrow x = \pm 3$.

If k is not a perfect square, then the solutions are irrational numbers. They can be written using standard radical form or approximated.

k = 8

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow \text{If } x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5} \text{ i.}$

Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k=9 \longrightarrow If x^2 = 9$, then $x = \pm \sqrt{9}$. $\longrightarrow x = \pm 3$.

If k is not a perfect square, then the solutions are irrational numbers. They can be written using standard radical form or approximated.

 $k = 8 \longrightarrow If x^2 = 8,$

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow \text{If } x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5} \text{ i.}$

Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k=9 \longrightarrow If x^2 = 9$, then $x = \pm \sqrt{9}$. $\longrightarrow x = \pm 3$.

If k is not a perfect square, then the solutions are irrational numbers. They can be written using standard radical form or approximated.

 $k = 8 \longrightarrow If x^2 = 8$, then $x = \pm \sqrt{8}$.

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow If x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5}i$.

Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k = 9 \longrightarrow If x^2 = 9$, then $x = \pm \sqrt{9}$. $\longrightarrow x = \pm 3$.

If k is not a perfect square, then the solutions are irrational numbers. They can be written using standard radical form or approximated.

 $k = 8 \longrightarrow If x^2 = 8$, then $x = \pm \sqrt{8}$. $\longrightarrow x = 1$

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow \text{If } x^2 = -5$, then $x = \pm \sqrt{-5} \longrightarrow x = \pm \sqrt{5} \text{ i.}$

Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k = 9 \longrightarrow If x^2 = 9$, then $x = \pm \sqrt{9}$. $\longrightarrow x = \pm 3$.

If k is not a perfect square, then the solutions are irrational numbers. They can be written using standard radical form or approximated.

k = 8 \longrightarrow If x² = 8, then x = $\pm\sqrt{8}$. \longrightarrow x = $\pm 2\sqrt{2}$

The Square Root Property
If
$$x^2 = k$$
, then $x = \pm \sqrt{k}$.

Case 1: k < 0. In general, if k < 0, then the <u>two solutions</u> are <u>imaginary numbers</u>. $k = -5 \longrightarrow \text{If } x^2 = -5$, then $x = \pm \sqrt{-5} \therefore x = \pm \sqrt{5} \text{ i.}$

Case 2: k = 0. If $x^2 = 0$, then x = 0. (There is only one solution.)

Case 3: k > 0.

In general, if k > 0, then the <u>two solutions</u> are <u>real numbers</u>.

If k is a perfect square, then the solutions are rational numbers and the exact values can be given.

 $k = 9 \longrightarrow If x^2 = 9$, then $x = \pm \sqrt{9}$. $\longrightarrow x = \pm 3$.

If k is not a perfect square, then the solutions are irrational numbers. They can be written using standard radical form or approximated. $k = 8 \longrightarrow If x^2 = 8$, then $x = \pm \sqrt{8} \therefore x = \pm 2\sqrt{2} \approx \pm 2.83$. **The Square Root Property** If $x^2 = k$, then $x = \pm \sqrt{k}$. **The Square Root Property** If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solving Second Degree Equations With 1 Variable
Solving Second Degree Equations With 1 Variable $Ax^2 + Bx + C = 0$ where $A \neq 0$.

Solving Second Degree Equations With 1 Variable $Ax^2 + Bx + C = 0$ where $A \neq 0$.

You have solved second degree equations (also called quadratic equations) using the factoring method.

Solving Second Degree Equations With 1 Variable $Ax^2 + Bx + C = 0$ where $A \neq 0$.

You have solved second degree equations (also called quadratic equations) using the factoring method. The square root property can also be used to solve second degree equations.

Solving Second Degree Equations With 1 Variable $Ax^2 + Bx + C = 0$ where $A \neq 0$.

You have solved second degree equations (also called quadratic equations) using the factoring method. The square root property can also be used to solve second degree equations. This method can only be used if B = 0.

Solving Second Degree Equations With 1 Variable $Ax^2 + Bx + C = 0$ where $A \neq 0$.

You have solved second degree equations (also called quadratic equations) using the factoring method. The square root property can also be used to solve second degree equations. This method can only be used if B = 0. (There is no 'x' term in the equation.)

Solving Second Degree Equations With 1 Variable $Ax^2 + Bx + C = 0$ where $A \neq 0$.

You have solved second degree equations (also called quadratic equations) using the factoring method. The square root property can also be used to solve second degree equations. This method can only be used if B = 0. (There is no 'x' term in the equation.) This lesson is designed to illustrate this process.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$ 2. $9x^2 - 25 = 0$ 3. $x^2 + 9 = 0$

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^2 - 36 = 0$$
 2. $9x^2 - 25 = 0$ 3. $x^2 + 9 = 0$

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^2 - 36 = 0$$

2. $9x^2 - 25 = 0$
3. $x^2 + 9 = 0$

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^2 - 36 = 0$$

 x^2
2. $9x^2 - 25 = 0$
3. $x^2 + 9 = 0$

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^2 - 36 = 0$$

 $x^2 =$
2. $9x^2 - 25 = 0$
3. $x^2 + 9 = 0$

Step 1: Solve for x².

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^{2} - 36 = 0$$

 $x^{2} = 36$
2. $9x^{2} - 25 = 0$
3. $x^{2} + 9 = 0$
Step 1: Solve for x^{2} .

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^2 - 36 = 0$$

 $x^2 = 36$
2. $9x^2 - 25 = 0$
3. $x^2 + 9 = 0$

Step 1: Solve for x^2 .

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^2 - 36 = 0$$

 $x^2 = 36$
2. $9x^2 - 25 = 0$
3. $x^2 + 9 = 0$

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^2 - 36 = 0$$

 $x^2 = 36$
 $x =$
2. $9x^2 - 25 = 0$
3. $x^2 + 9 = 0$
 $x = 0$

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^{2} - 36 = 0$$

 $x^{2} = 36$
 $x = \pm$
2. $9x^{2} - 25 = 0$
3. $x^{2} + 9 = 0$

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^2 - 36 = 0$$

 $x^2 = 36$
 $x = \pm \sqrt{36}$
2. $9x^2 - 25 = 0$
3. $x^2 + 9 = 0$

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^2 - 36 = 0$$

 $x^2 = 36$
 $x = \pm \sqrt{36}$
2. $9x^2 - 25 = 0$
3. $x^2 + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^2 - 36 = 0$$

 $x^2 = 36$
 $x = \pm \sqrt{36}$
2. $9x^2 - 25 = 0$
3. $x^2 + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^{2} - 36 = 0$$

 $x^{2} = 36$
 $x = \pm \sqrt{36}$
 $x =$
2. $9x^{2} - 25 = 0$
3. $x^{2} + 9 = 0$
 $x = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^{2} - 36 = 0$$

 $x^{2} = 36$
 $x = \pm \sqrt{36}$
 $x = \pm$
2. $9x^{2} - 25 = 0$
3. $x^{2} + 9 = 0$
 $x = \pm$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^{2} - 36 = 0$$

 $x^{2} = 36$
 $x = \pm \sqrt{36}$
 $x = \pm 6$
2. $9x^{2} - 25 = 0$
3. $x^{2} + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^{2} - 36 = 0$$

 $x^{2} = 36$
 $x = \pm \sqrt{36}$
 $x = \pm 6$
2. $9x^{2} - 25 = 0$
3. $x^{2} + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^{2} - 36 = 0$$

 $x^{2} = 36$
 $x = \pm \sqrt{36}$
 $x = \pm 6$
2. $9x^{2} - 25 = 0$
3. $x^{2} + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^{2} - 36 = 0$$

 $x^{2} = 36$
 $x = \pm \sqrt{36}$
 $x = \pm 6$
2. $9x^{2} - 25 = 0$
3. $x^{2} + 9 = 0$
 $x = 100$
 $x = 100$
3. $x^{2} + 9 = 0$
5. $x = \pm 0$

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^{2} - 36 = 0$$

 $x^{2} = 36$
 $x = \pm \sqrt{36}$
 $x = \pm 6$
2. $9x^{2} - 25 = 0$
 $9x^{2} = 25$
 $x^{2} = 0$
 $3. x^{2} + 9 = 0$
 $3. x^{2} + 9 = 0$
 $3. x^{2} + 9 = 0$

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^{2} - 36 = 0$$

 $x^{2} = 36$
 $x = \pm \sqrt{36}$
 $x = \pm 6$
2. $9x^{2} - 25 = 0$
 $9x^{2} = 25$
 $x^{2} = \frac{25}{9}$
3. $x^{2} + 9 = 0$
 $3x^{2} + 9 = 0$
 $3x^{2} + 9 = 0$
 $3x^{2} + 9 = 0$

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1.
$$x^{2} - 36 = 0$$

 $x^{2} = 36$
 $x = \pm \sqrt{36}$
 $x = \pm 6$
2. $9x^{2} - 25 = 0$
 $9x^{2} = 25$
 $x^{2} = \frac{25}{9}$
 $x = \pm 6$
3. $x^{2} + 9 = 0$
 $9x^{2} = 25$
 $x = \pm 5$
 $x = \pm 6$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	
$x = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$x = \pm \frac{5}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	
$x = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$x = \pm \frac{5}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	X ²
$\mathbf{x} = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$x = \pm \frac{5}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{x}^2 =$
$x = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$\mathbf{x} = \pm \frac{5}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{x}^2 = -9$
$\mathbf{x} = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$x = \pm \frac{5}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{x}^2 = -9$
$\mathbf{x} = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$\mathbf{x} = \pm \frac{5}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{X}^2 = -9$
$\mathbf{x} = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$\mathbf{x} = \pm \frac{5}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{x}^2 = -9$
$\mathbf{x} = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	x =
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$x = \pm \frac{5}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{X}^2 = -9$
$\mathbf{x} = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	$\mathbf{x} = \mathbf{\pm}$
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$x = \pm \frac{5}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{x}^2 = -9$
$x = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	$\mathbf{x} = \pm \sqrt{-9}$
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$\mathbf{x} = \pm \frac{5}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{x}^2 = -9$
$x = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	$\mathbf{x} = \pm \sqrt{-9}$
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$x = \pm \frac{5}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{x}^2 = -9$
$x = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	$\mathbf{x} = \pm \sqrt{-9}$
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	
	$\mathbf{x} = \pm \frac{5}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{x}^2 = -9$
$\mathbf{x} = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	$\mathbf{x} = \pm \sqrt{-9}$
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	x =
	$\mathbf{x} = \pm \frac{5}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{x}^2 = -9$
$x = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	$\mathbf{x} = \pm \sqrt{-9}$
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	$\mathbf{x} = \pm$
	$x = \pm \frac{5}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{x}^2 = -9$
$x = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	$\mathbf{x} = \pm \sqrt{-9}$
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	$\mathbf{x} = \pm 3\mathbf{i}$
	$x = \pm \frac{5}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$\mathbf{x}^2 = -9$
$x = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	$\mathbf{x} = \pm \sqrt{-9}$
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	$\mathbf{x} = \pm 3\mathbf{i}$
	$x = \pm \frac{5}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

1. $x^2 - 36 = 0$	2. $9x^2 - 25 = 0$	3. $x^2 + 9 = 0$
$x^2 = 36$	$9x^2 = 25$	$x^2 = -9$
$x = \pm \sqrt{36}$	$\mathbf{x}^2 = \frac{25}{9}$	$\mathbf{x} = \pm \sqrt{-9}$
$\mathbf{x} = \pm 6$	$\mathbf{x} = \pm \sqrt{\frac{25}{9}}$	$\mathbf{x} = \pm 3\mathbf{i}$
	$x = \pm \frac{5}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$ 5. $x^2 - 3 = 0$ 6. $5x^2 - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$ 5. $x^2 - 3 = 0$ 6. $5x^2 - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$ 5. $x^2 - 3 = 0$ 6. $5x^2 - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$ $16x^2 =$ 5. $x^2 - 3 = 0$ 6. $5x^2 - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$ $16x^2 = -25$ 5. $x^2 - 3 = 0$ 6. $5x^2 - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$ $16x^2 = -25$ $x^2 = -25$ $x^2 =$

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$ $16x^2 = -25$ $x^2 = -\frac{25}{16}$ 5. $x^2 - 3 = 0$ 6. $5x^2 - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.
$$16x^2 + 25 = 0$$

 $16x^2 = -25$
 $x^2 = \frac{-25}{16}$
5. $x^2 - 3 = 0$
6. $5x^2 - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.
$$16x^2 + 25 = 0$$

 $16x^2 = -25$
 $x^2 = \frac{-25}{16}$
5. $x^2 - 3 = 0$
6. $5x^2 - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.
$$16x^2 + 25 = 0$$

 $16x^2 = -25$
 $x^2 = \frac{-25}{16}$
 $x =$
5. $x^2 - 3 = 0$
6. $5x^2 - 2 = 0$
 $x = 0$

Step 1: Solve for x².

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
	5. $x^2 - 3 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.
$$16x^2 + 25 = 0$$

 $16x^2 = -25$
 $x^2 = \frac{-25}{16}$
 $x = \pm \sqrt{\frac{-25}{16}}$
5. $x^2 - 3 = 0$
6. $5x^2 - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.
$$16x^2 + 25 = 0$$

 $16x^2 = -25$
 $x^2 = \frac{-25}{16}$
 $x = \pm \sqrt{\frac{-25}{16}}$
5. $x^2 - 3 = 0$
6. $5x^2 - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.
$$16x^2 + 25 = 0$$

 $16x^2 = -25$
 $x^2 = \frac{-25}{16}$
 $x = \pm \sqrt{\frac{-25}{16}}$
5. $x^2 - 3 = 0$
6. $5x^2 - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.
$$16x^{2} + 25 = 0$$

 $16x^{2} = -25$
 $x^{2} = \frac{-25}{16}$
 $x = \pm \sqrt{\frac{-25}{16}}$
 $x = -25$
 $x = \pm \sqrt{\frac{-25}{16}}$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.
$$16x^{2} + 25 = 0$$

 $16x^{2} = -25$
 $x^{2} = \frac{-25}{16}$
 $x = \pm \sqrt{\frac{-25}{16}}$
 $x = \pm$
5. $x^{2} - 3 = 0$
6. $5x^{2} - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.
$$16x^{2} + 25 = 0$$

 $16x^{2} = -25$
 $x^{2} = \frac{-25}{16}$
 $x = \pm \sqrt{\frac{-25}{16}}$
 $x = \pm \frac{5}{4}i$
5. $x^{2} - 3 = 0$
6. $5x^{2} - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.
$$16x^{2} + 25 = 0$$

 $16x^{2} = -25$
 $x^{2} = \frac{-25}{16}$
 $x = \pm \sqrt{\frac{-25}{16}}$
 $x = \pm \frac{5}{4}i$
5. $x^{2} - 3 = 0$
6. $5x^{2} - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.
$$16x^{2} + 25 = 0$$

 $16x^{2} = -25$
 $x^{2} = \frac{-25}{16}$
 $x = \pm \sqrt{\frac{-25}{16}}$
 $x = \pm \frac{5}{4}i$
5. $x^{2} - 3 = 0$
6. $5x^{2} - 2 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$		
$\mathbf{x}^2 = \frac{-25}{16}$		
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x².

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$		
$\mathbf{x}^2 = \frac{-25}{16}$		
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$X^2 =$	
$x^2 = \frac{-25}{16}$		
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$x = \pm \frac{5}{4}i$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	
$x^2 = \frac{-25}{16}$		
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	
$x^2 = \frac{-25}{16}$		
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x².

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	
$x^2 = \frac{-25}{16}$		
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x².

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	
$x^2 = \frac{-25}{16}$	x =	
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x².

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.	$16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
	$16x^2 = -25$	$x^2 = 3$	
	$\mathbf{x}^2 = \frac{-25}{16}$	$\mathbf{x} = \pm$	
	$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
	$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x².

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	
$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$x = \pm \frac{5}{4}i$		

Step 1: Solve for x².

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	
$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	
$x^2 = \frac{-25}{16}$	$x = \pm \sqrt{3}$	
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$x = \pm \frac{5}{4}i$		

Step 1: Solve for x².

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	
$\mathbf{x}^2 = \frac{-25}{16}$	$x = \pm \sqrt{3}$	
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x².

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	
$\mathbf{x}^2 = \frac{-25}{16}$	$x = \pm \sqrt{3}$	
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

$4. 16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	
$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.	$16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
	$16x^2 = -25$	$x^2 = 3$	
	$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	
	$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
	$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.	$16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
	$16x^2 = -25$	$x^2 = 3$	$5x^2 =$
	$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	
	$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
	$x = \pm \frac{5}{4}i$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$x^2 = 3$	$5x^2 = 2$
$\mathbf{x} = \pm \sqrt{3}$	
	5. $x^{2} - 3 = 0$ $x^{2} = 3$ $x = \pm \sqrt{3}$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$x^2 = 3$	$5x^2 = 2$
$\mathbf{x} = \pm \sqrt{3}$	$x^2 =$
	5. $x^{2} - 3 = 0$ $x^{2} = 3$ $x = \pm \sqrt{3}$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$x^2 = 3$	$5x^2 = 2$
$x = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
	5. $x^{2} - 3 = 0$ $x^{2} = 3$ $x = \pm \sqrt{3}$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. 1	$6x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
1	$6x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
	$\mathbf{x}^2 = \frac{-25}{16}$	$x = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
	$x = \pm \sqrt{\frac{-25}{16}}$		
	$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4.	$16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
	$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
	$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
	$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		
	$x = \pm \frac{5}{4}i$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

$4. 16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		x =
$x = \pm \frac{5}{4}i$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

4. $16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
$\mathbf{x}^2 = \frac{-25}{16}$	$x = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		$\mathbf{x} = \pm$
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

$4. 16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
$x^2 = \frac{-25}{16}$	$x = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		$\mathbf{x} = \pm \sqrt{\frac{2}{5}}$
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

$4. 16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	$\mathbf{X}^2 = \frac{2}{5}$
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		$\mathbf{x} = \pm \sqrt{\frac{2}{5}}$
$x = \pm \frac{5}{4}i$		

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Step 3: Express the solutions in 'best form'.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

$4. 16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		$\mathbf{x} = \pm \sqrt{\frac{2}{5}}$
$x = \pm \frac{5}{4}i$		

Step 1: Solve for x².

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

$4. 16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
$x^2 = \frac{-25}{16}$	$x = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		$\mathbf{x} = \pm \sqrt{\frac{2}{5}}$
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		x =

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

$4. 16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
$x^2 = \frac{-25}{16}$	$x = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		$\mathbf{x} = \pm \sqrt{\frac{2}{5}}$
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		$\mathbf{x} = \pm$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

$4. 16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
$x^2 = \frac{-25}{16}$	$x = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		$\mathbf{x} = \pm \sqrt{\frac{2}{5}}$
$x = \pm \frac{5}{4}i$		$\mathbf{x} = \pm \frac{\sqrt{10}}{5}$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

$4. 16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		$\mathbf{x} = \pm \sqrt{\frac{2}{5}}$
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		$\mathbf{x} = \pm \frac{\sqrt{10}}{5}$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Step 3: Express the solutions in 'best form'.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

$4. 16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		$\mathbf{x} = \pm \sqrt{\frac{2}{5}}$
$\mathbf{x} = \pm \frac{5}{4}\mathbf{i}$		$\mathbf{x} = \pm \frac{\sqrt{10}}{5}$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Step 3: Express the solutions in 'best form'.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

$4. 16x^2 + 25 = 0$	5. $x^2 - 3 = 0$	6. $5x^2 - 2 = 0$
$16x^2 = -25$	$x^2 = 3$	$5x^2 = 2$
$x^2 = \frac{-25}{16}$	$\mathbf{x} = \pm \sqrt{3}$	$\mathbf{x}^2 = \frac{2}{5}$
$\mathbf{x} = \pm \sqrt{\frac{-25}{16}}$		$\mathbf{x} = \pm \sqrt{\frac{2}{5}}$
$x = \pm \frac{5}{4}i$		$\mathbf{x} = \pm \frac{\sqrt{10}}{5}$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Step 3: Express the solutions in 'best form'.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ 8. $x^2 + 5 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ 8. $x^2 + 5 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ 8. $x^2 + 5 = 0$ **Step 1:** Solve for x^2 . **Step 2:** Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ $9x^2 = 8$. $x^2 + 5 = 0$ Step 1: Solve for x^2 .

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ $9x^2 = 2$ 8. $x^2 + 5 = 0$ Step 1: Solve for x^2 .

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

Step 1: Solve for x^2 .

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ $9x^2 = 2$ $x^2 = \frac{2}{9}$ 8. $x^2 + 5 = 0$ 8. $x^2 + 5 = 0$

Step 1: Solve for x^2 .

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ $9x^2 = 2$ $x^2 = \frac{2}{9}$ 8. $x^2 + 5 = 0$ 8. $x^2 + 5 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ $9x^2 = 2$ $x^2 = \frac{2}{9}$ 8. $x^2 + 5 = 0$ 8. $x^2 + 5 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ $9x^2 = 2$ $x^2 = \frac{2}{9}$ x =8. $x^2 + 5 = 0$ 8. $x^2 + 5 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ $9x^2 = 2$ $x^2 = \frac{2}{9}$ $x = \pm$ 8. $x^2 + 5 = 0$ 8. $x^2 + 5 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ $9x^2 = 2$ $x^2 = \frac{2}{9}$ $x = \pm \sqrt{\frac{2}{9}}$ 8. $x^2 + 5 = 0$ 8. $x^2 + 5 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ $9x^2 = 2$ $x^2 = \frac{2}{9}$ $x = \pm \sqrt{\frac{2}{9}}$ 8. $x^2 + 5 = 0$ 8. $x^2 + 5 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ $9x^2 = 2$ $x^2 = \frac{2}{9}$ $x = \pm \sqrt{\frac{2}{9}}$ 8. $x^2 + 5 = 0$ 8. $x^2 + 5 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$ $9x^2 = 2$ $x^2 = \frac{2}{9}$ $x = \pm \sqrt{\frac{2}{9}}$ $x = \frac{2}{9}$ $x = \frac{2}{9}$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^{2} - 2 = 0$ $9x^{2} = 2$ $x^{2} = \frac{2}{9}$ $x = \pm \sqrt{\frac{2}{9}}$ $x = \pm \sqrt{\frac{2}{9}}$ 8. $x^{2} + 5 = 0$ 8. $x^{2} + 5 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^{2} - 2 = 0$ $9x^{2} = 2$ $x^{2} = \frac{2}{9}$ $x = \pm \sqrt{\frac{2}{9}}$ $x = \pm \frac{\sqrt{2}}{3}$ 8. $x^{2} + 5 = 0$ 8. $x^{2} + 5 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	
$\mathbf{x}^2 = \frac{2}{9}$	
$x = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	
$\mathbf{x}^2 = \frac{2}{9}$	
$x = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	
$\mathbf{x}^2 = \frac{2}{9}$	
$\mathbf{x} = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	
$\mathbf{x}^2 = \frac{2}{9}$	
$x = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 =$
$\mathbf{x}^2 = \frac{2}{9}$	
$x = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x².

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = \mathbf{-5}$
$\mathbf{x}^2 = \frac{2}{9}$	
$x = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x².

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = \mathbf{-5}$
$\mathbf{x}^2 = \frac{2}{9}$	
$x = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = \mathbf{-5}$
$\mathbf{x}^2 = \frac{2}{9}$	
$x = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = \mathbf{-5}$
$\mathbf{x}^2 = \frac{2}{9}$	x =
$x = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = \mathbf{-5}$
$\mathbf{x}^2 = \frac{2}{9}$	$\mathbf{x} = \pm$
$\mathbf{x} = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = \mathbf{-5}$
$\mathbf{x}^2 = \frac{2}{9}$	$x = \pm \sqrt{-5}$
$\mathbf{x} = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = \mathbf{-5}$
$\mathbf{x}^2 = \frac{2}{9}$	$x = \pm \sqrt{-5}$
$x = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = \mathbf{-5}$
$\mathbf{x}^2 = \frac{2}{9}$	$x = \pm \sqrt{-5}$
$\mathbf{x} = \pm \sqrt{\frac{2}{9}}$	
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = -5$
$\mathbf{x}^2 = \frac{2}{9}$	$x = \pm \sqrt{-5}$
$x = \pm \sqrt{\frac{2}{9}}$	x =
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = \mathbf{-5}$
$\mathbf{x}^2 = \frac{2}{9}$	$x = \pm \sqrt{-5}$
$x = \pm \sqrt{\frac{2}{9}}$	$\mathbf{x} = \pm$
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = \mathbf{-5}$
$\mathbf{x}^2 = \frac{2}{9}$	$\mathbf{x} = \pm \sqrt{-5}$
$x = \pm \sqrt{\frac{2}{9}}$	$\mathbf{x} = \pm \sqrt{5} \mathbf{i}$
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = -5$
$\mathbf{x}^2 = \frac{2}{9}$	$x = \pm \sqrt{-5}$
$x = \pm \sqrt{\frac{2}{9}}$	$x = \pm \sqrt{5} i$
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$\mathbf{x}^2 = \mathbf{-5}$
$\mathbf{x}^2 = \frac{2}{9}$	$x = \pm \sqrt{-5}$
$x = \pm \sqrt{\frac{2}{9}}$	$\mathbf{x} = \pm \sqrt{5} \mathbf{i}$
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

7. $9x^2 - 2 = 0$	8. $x^2 + 5 = 0$
$9x^2 = 2$	$x^2 = -5$
$\mathbf{x}^2 = \frac{2}{9}$	$x = \pm \sqrt{-5}$
$\mathbf{x} = \pm \sqrt{\frac{2}{9}}$	$\mathbf{x} = \pm \sqrt{5} \mathbf{i}$
$\mathbf{x} = \pm \frac{\sqrt{2}}{3}$	

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^2 + 12 = 0$ 10. $7x^2 + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^2 + 12 = 0$ 10. $7x^2 + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

10. $7x^2 + 9 = 0$ 9. $x^2 + 12 = 0$ $x^2 = -12$ **Step 1:** Solve for x^2 . **Step 2:** Apply the square root property.

If $x^2 = k$, then $x = \pm \sqrt{k}$.

Step 3: Express the solutions in 'best form'.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^2 + 12 = 0$ $x^2 = -12$ 10. $7x^2 + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^2 + 12 = 0$ $x^2 = -12$ 10. $7x^2 + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^{2} + 12 = 0$ $x^{2} = -12$ x =10. $7x^{2} + 9 = 0$ x = 0

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^{2} + 12 = 0$ $x^{2} = -12$ $x = \pm$ 10. $7x^{2} + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^{2} + 12 = 0$ $x^{2} = -12$ $x = \pm \sqrt{-12}$ 10. $7x^{2} + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^{2} + 12 = 0$ $x^{2} = -12$ $x = \pm \sqrt{-12}$ 10. $7x^{2} + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^{2} + 12 = 0$ $x^{2} = -12$ $x = \pm \sqrt{-12}$ 10. $7x^{2} + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^{2} + 12 = 0$ $x^{2} = -12$ $x = \pm \sqrt{-12}$ x =10. $7x^{2} + 9 = 0$ 10. $7x^{2} + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^{2} + 12 = 0$ $x^{2} = -12$ $x = \pm \sqrt{-12}$ $x = \pm$ 10. $7x^{2} + 9 = 0$ $10x^{2} + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^{2} + 12 = 0$ $x^{2} = -12$ $x = \pm \sqrt{-12}$ $x = \pm 2\sqrt{3}$ i 10. $7x^{2} + 9 = 0$ $10x^{2} + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^{2} + 12 = 0$ $x^{2} = -12$ $x = \pm \sqrt{-12}$ $x = \pm 2\sqrt{3}$ i 10. $7x^{2} + 9 = 0$ $10x^{2} + 9 = 0$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x².

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^2 + 12 = 0$	10. $7x^2 + 9 = 0$
$x^2 = -12$	$7\mathbf{x}^2 = -9$
$\mathbf{x} = \pm \sqrt{-12}$	$\mathbf{x}^2 = \frac{-9}{7}$
$x = \pm 2\sqrt{3} i$	$\mathbf{x} = \pm$

Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Step 3: Express the solutions in 'best form'.

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).

9. $x^2 + 12 = 0$	10. $7x^2 + 9 = 0$
$x^2 = -12$	$7x^2 = -9$
$\mathbf{x} = \pm \sqrt{-12}$	$\mathbf{x}^2 = \frac{-9}{7}$
$x = \pm 2\sqrt{3} i$	$\mathbf{x} = \pm \sqrt{\frac{-9}{7}}$
	$\mathbf{x} = \pm \frac{3\sqrt{7}}{7}\mathbf{i}$

Step 1: Solve for x^2 .

- Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.
- **Step 3: Express the solutions in 'best form'.**

Solve each of the following using the square root property. Express imaginary solutions in bi form. Express all square roots in simplest form (exact value).



Step 1: Solve for x^2 .

Step 2: Apply the square root property. If $x^2 = k$, then $x = \pm \sqrt{k}$.

Step 3: Express the solutions in 'best form'.