

**ALGEBRA II**  
**Chapter 4 section 5**  
**Solve Quadratic Equations by Finding Square Roots**  
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**FOCUS:**

How can you use square roots to solve a quadratic equation?

**VOCAB:**

*Square Root:* \_\_\_\_\_

\_\_\_\_\_

*Radical:* \_\_\_\_\_

\_\_\_\_\_

*Radicand:* \_\_\_\_\_

*Rationalizing the Denominator:* \_\_\_\_\_

\_\_\_\_\_

*Conjugates:* \_\_\_\_\_

\_\_\_\_\_

**WARM – UP:**

Find the exact value.

Approximate the value to the nearest tenth.

1.  $\sqrt{49}$  \_\_\_\_\_

2.  $-\sqrt{144}$  \_\_\_\_\_

3.  $\sqrt{\frac{82}{16}}$  \_\_\_\_\_

4. The area of half of a square mural is 60.5 square feet. What is the length of a side of the mural?

**NOTES:**

Simplify the expression.

$\sqrt{75}$

$\sqrt{27}$

$\sqrt{300}$

$\sqrt{98}$

$\sqrt{7} \cdot \sqrt{35}$

$\sqrt{10} \cdot \sqrt{15}$

$\sqrt{8} \cdot \sqrt{28}$

$3\sqrt{5} \cdot 4\sqrt{6}$

$$\sqrt{\frac{100}{169}}$$

$$\sqrt{\frac{9}{64}}$$

$$\sqrt{\frac{11}{144}}$$

$$\sqrt{\frac{15}{4}}$$

$$\sqrt{\frac{2}{15}}$$

$$\sqrt{\frac{9}{8}}$$

$$\frac{4}{5 - \sqrt{2}}$$

$$\frac{2}{4 + \sqrt{11}}$$

Solve.

$$2x^2 - 15 = 65$$

$$3(x - 2)^2 = 40$$

What are the solutions?

$$\frac{1}{3}(x - 4)^2 = 11$$

If you drop an object off the roof of an apartment building that is 240 feet tall, about how long will it take the object to hit the ground?

Let's see if you comprehended what we worked on in class...

Try \_\_\_\_\_ for homework