

**Quadratics: Using Square Roots and Zero Property - Guided Lesson
Explanation****Explanation#1**

We know that the Zero Product Property states that for all real numbers a and b:

If $ab = 0$, then $a = 0$ or $b = 0$

According to the Zero Product Property, if $(7r - 3)(4r - 3) = 0$, then $(7r - 3)$ must be 0 or $(4r - 3)$ must be 0. Now we will write two equations and solve r.

$$7r - 3 = 0 \quad \text{or} \quad 4r - 3 = 0$$

$$7r = 3 \quad \text{or} \quad 4r = 3$$

$$r = \frac{3}{7} \quad \quad \quad r = \frac{3}{4}$$

Explanation#2

We can solve by isolating x^2 and taking the square root, if a quadratic equation ($ax^2 + bx + c = 0$) has no bx term.

Step 3) As we will solve for u:

$$u^2 = 25$$

$$u = \pm\sqrt{25}$$

$$u = \pm 5$$

$$u = 5 \text{ or } u = -5$$



Name _____

Date _____

Explanation#3

We know that the Zero Product Property states that for all real numbers a and b:

If $ab = 0$, then $a = 0$ or $b = 0$

According to the Zero Product Property, if $(k + 8)(k + 5) = 0$, then $(k + 8)$ must be 0 or $(k + 5)$ must be 0. Now we will write two equations and solve m.

$$k + 8 = 0 \quad \text{or} \quad k + 5 = 0$$

$$k = -8 \quad \text{or} \quad k = -5$$

