

## Reminder:

The square root method only works for quadratic equations in the form of  $ax^2 + c = 0$ . Quadratics in the form of  $ax^2 + bx + c = 0$  can only be solved by factoring.

## Solve each quadratic below.

FACTOR	FACTOR	SQUARE ROOT
1. $x^2 + 2x - 8 = 0$	2. $6x^2 - 24x = 72$	3. $4(x-3)^2 = 20$
(x + 4)(x - 2) = 0 x + 4 = 0 $x - 2 = 0x = -4$ $x = 2x = \{-4, 2\}$	$6x^{2} - 24x - 72 = 0$ $6(x^{2} - 4x - 12) = 0$ 6(x - 6)(x + 2) = 0 x - 6 = 0  x + 2 = 0 x = 6  x = -2	$4   4   4   (x-3)^2 = 5   \sqrt{(x-3)^2} = \pm\sqrt{5}   x-3 = \pm\sqrt{5}   +3   \pm3$
	x = {6, -2}	$x = 3 \pm \sqrt{5}$

x = 
$$\{3 + \sqrt{5}, 3 - \sqrt{5}\}$$

x = {6, -3}

FACTOR	SQUARE ROOT	FACTOR
4. $5x^2 + 20x = 0$	$5. 9x^2 = 81$ 9 9	$6.  \frac{x}{9} = \frac{2}{x-3}$
5x(x + 4) = 0 5x = 0  x + 4 = 0 x = 0  x = -4	$x^{2} = 9$ $\sqrt{x^{2}} = \pm \sqrt{9}$ $x = \pm 3$	x(x-3) = (2)(9) $x^{2} - 3x = 18$ $x^{2} - 3x - 18 = 0$
x = {0, -4}	x = {3, -3}	(x-6)(x+3) = 0 x-6 = 0 $x+3 = 0x = 6$ $x = -3$