

## Solve Quadratics

Solve each equation. Some of them may have radicals in their solutions.

a)  $3x^2 = 9$

b)  $(x - 3)^2 = 1$

c)  $4(x - 3)^2 = 1$

d)  $2(x - 3)^2 = 12$

e)  $5b^2 - 25 = 0$

f)  $(x - 2)^2 = 9$

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Solve each equation. Some of them may have radicals in their solutions.

a)  $3x^2 = 9$

$$3x^2 = 9$$

$$x^2 = 3$$

$$x = \pm\sqrt{3}$$

b)  $(x - 3)^2 = 1$

$$(x - 3) = \pm 1$$

$$x = 3 \pm 1$$

$$x = 2 \text{ or } 4$$

c)  $4(x - 3)^2 = 1$

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

$$(x - 3) = \pm \frac{1}{2}$$

$$x = 3 \pm \frac{1}{2}$$

$$x = \frac{7}{2} \text{ or } \frac{5}{2}$$

d)  $2(x - 3)^2 = 12$

$$(x - 3)^2 = 6$$

$$(x - 3) = \pm\sqrt{6}$$

$$x = 3 \pm \sqrt{6}$$

e)  $5b^2 - 25 = 0$

$$5b^2 = 25$$

$$b^2 = 5$$

$$b = \pm\sqrt{5}$$

f)  $(x - 2)^2 = 9$

$$(x - 2) = \pm 3$$

$$x = 2 \pm 3 = -1 \text{ or } 5$$