

## Solving Quadratic Equations with Square Roots

Solve each equation by taking square roots.

1)  $k^2 = 76$

2)  $k^2 = 16$

3)  $x^2 = 21$

4)  $a^2 = 4$

5)  $x^2 + 8 = 28$

6)  $2n^2 = -144$

7)  $-6m^2 = -414$

8)  $7x^2 = -21$

9)  $m^2 + 7 = 88$

10)  $-5x^2 = -500$

11)  $-7n^2 = -448$

12)  $-2k^2 = -162$

13)  $x^2 - 5 = 73$

14)  $16n^2 = 49$

$$15) n^2 - 5 = -4$$

$$16) n^2 + 8 = 80$$

$$17) 7v^2 + 1 = 29$$

$$18) 10n^2 + 2 = 292$$

$$19) 2m^2 + 10 = 210$$

$$20) 9n^2 + 10 = 91$$

$$21) 5n^2 - 7 = 488$$

$$22) 8n^2 - 6 = 306$$

$$23) 10n^2 - 10 = 470$$

$$24) 8n^2 - 4 = 532$$

$$25) 4r^2 + 1 = 325$$

$$26) 8b^2 - 7 = 193$$

$$27) 2k^2 - 2 = 144$$

$$28) 3 - 4x^2 = -85$$

## Solving Quadratic Equations with Square Roots

Solve each equation by taking square roots.

1)  $k^2 = 76$

 $\{8.717, -8.717\}$ 

2)  $k^2 = 16$

 $\{4, -4\}$ 

3)  $x^2 = 21$

 $\{4.582, -4.582\}$ 

4)  $a^2 = 4$

 $\{2, -2\}$ 

5)  $x^2 + 8 = 28$

 $\{4.472, -4.472\}$ 

6)  $2n^2 = -144$

No solution.

7)  $-6m^2 = -414$

 $\{8.306, -8.306\}$ 

8)  $7x^2 = -21$

No solution.

9)  $m^2 + 7 = 88$

 $\{9, -9\}$ 

10)  $-5x^2 = -500$

 $\{10, -10\}$ 

11)  $-7n^2 = -448$

 $\{8, -8\}$ 

12)  $-2k^2 = -162$

 $\{9, -9\}$ 

13)  $x^2 - 5 = 73$

 $\{8.831, -8.831\}$ 

14)  $16n^2 = 49$

 $\{1.75, -1.75\}$

$$15) n^2 - 5 = -4$$

$$\{1, -1\}$$

$$16) n^2 + 8 = 80$$

$$\{8.485, -8.485\}$$

$$17) 7v^2 + 1 = 29$$

$$\{2, -2\}$$

$$18) 10n^2 + 2 = 292$$

$$\{5.385, -5.385\}$$

$$19) 2m^2 + 10 = 210$$

$$\{10, -10\}$$

$$20) 9n^2 + 10 = 91$$

$$\{3, -3\}$$

$$21) 5n^2 - 7 = 488$$

$$\{9.949, -9.949\}$$

$$22) 8n^2 - 6 = 306$$

$$\{6.244, -6.244\}$$

$$23) 10n^2 - 10 = 470$$

$$\{6.928, -6.928\}$$

$$24) 8n^2 - 4 = 532$$

$$\{8.185, -8.185\}$$

$$25) 4r^2 + 1 = 325$$

$$\{9, -9\}$$

$$26) 8b^2 - 7 = 193$$

$$\{5, -5\}$$

$$27) 2k^2 - 2 = 144$$

$$\{8.544, -8.544\}$$

$$28) 3 - 4x^2 = -85$$

$$\{4.69, -4.69\}$$