

**Use the square root property to solve the equation.**

1)  $x^2 = 153$

A)  $\{-3\sqrt{17}, 3\sqrt{17}\}$

B)  $\{\frac{153}{2}\}$

C)  $\{17\}$

D)  $\{3\sqrt{17}\}$

1) \_\_\_\_\_

2)  $(x + 5)^2 = 13$

A)  $\{8\}$

C)  $\{-5 - \sqrt{13}, -5 + \sqrt{13}\}$

B)  $\{5 - \sqrt{13}, 5 + \sqrt{13}\}$

D)  $\{-\sqrt{13}, \sqrt{13}\}$

2) \_\_\_\_\_

3)  $(2x - 3)^2 = 49$

A)  $\{4, -10\}$

B)  $\{5, -2\}$

C)  $\{2, -5\}$

D)  $\{10, -4\}$

3) \_\_\_\_\_

4)  $(x - 1)^2 = -175$

A)  $\{1 - 5\sqrt{7}, 1 + 5\sqrt{7}\}$

C)  $\{-1 - 5i\sqrt{7}, -1 + 5i\sqrt{7}\}$

B)  $\{1 - 5i\sqrt{7}, 1 + 5i\sqrt{7}\}$

D)  $\{5i\sqrt{7} - 1, 5i\sqrt{7} + 1\}$

4) \_\_\_\_\_

**Complete the square for the binomial. Then factor the resulting perfect square trinomial.**

5)  $x^2 - 10x$

A)  $x^2 - 10x + 100 = (x - 10)^2$

C)  $x^2 - 10x - 100 = (x - 10)^2$

B)  $x^2 - 10x + 25 = (x - 5)^2$

D)  $x^2 - 10x - 25 = (x - 5)^2$

5) \_\_\_\_\_

**Use the quadratic formula to solve the equation.**

6)  $2x^2 - 7x - 9 = 0$

A)  $\{\frac{9}{2}, -1\}$

B)  $\{\frac{2}{9}, 0\}$

C)  $\{\frac{2}{9}, 1\}$

D)  $\{\frac{2}{9}, -1\}$

6) \_\_\_\_\_

**Solve.**

7)  $7x^2 + 8x = -2$

A)  $\frac{-4 \pm \sqrt{2}}{14}$

B)  $\frac{-4 \pm \sqrt{30}}{7}$

C)  $\frac{-8 \pm \sqrt{2}}{7}$

D)  $\frac{-4 \pm \sqrt{2}}{7}$

7) \_\_\_\_\_

**Solve the equation by completing the square.**

8)  $a^2 - 12a + 32 = 0$

A)  $\sqrt{32}, -\sqrt{32}$

B) 8, 4

C) 28, 4

D) -8, -4

8) \_\_\_\_\_

9)  $p^2 + 3p - 9 = 0$

A)  $-\frac{3}{2} \pm \frac{3\sqrt{5}}{2}$

B)  $-3 \pm 3\sqrt{5}$

C)  $-\frac{3}{2} + \frac{3\sqrt{5}}{2}$

D)  $\frac{3}{2} \pm \frac{3\sqrt{5}}{2}$

9) \_\_\_\_\_

**Solve.**

10) A rectangular park is 30 km long and 8 km wide. How long is a pedestrian route that runs diagonally across the park?

A) 1928 km

B)  $4\sqrt{241}$  km

C)  $2\sqrt{241}$  km

D) 76 km

10) \_\_\_\_\_

11) A ladder that is 15 feet long is 9 feet from the base of a wall. How far up the wall does the ladder reach?

A) 12 ft

B) 144 ft

C)  $3\sqrt{34}$  ft

D)  $\sqrt{6}$  ft

11) \_\_\_\_\_