

Homework 36.1

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Solve each equation by factoring.

1) $(a + 6)(a + 3) = 0$

2) $(k - 5)(k + 4) = 0$

3) $v^2 + 2v - 35 = 0$

4) $b^2 + 7b = 0$

5) $x^2 + 14x = -49$

6) $x^2 + 10 = 7x$

Find the value of c that completes the square.

7) $n^2 - 26n + c$

8) $a^2 - 32a + c$

Solve each equation by completing the square.

9) $m^2 + 8m + 9 = 2$

10) $p^2 - 10p + 17 = 3$

Solve each equation with the quadratic formula.

11) $3x^2 - 11x = 42$

12) $2n^2 + 3n = 54$

Solve each equation by taking square roots.

13) $16b^2 + 3 = 84$

14) $25r^2 - 8 = 28$

Solve each equation by factoring.

15) $2n^2 - 7n - 4 = 0$

16) $2x^2 + 3x - 2 = 0$

Solve each equation.

17) $-4(a + 4) + 8a = -14 + 4a$

18) $16 + 2v = 4(4v + 4)$

Answers to Homework 36.1

1) $\{-6, -3\}$

5) $\{-7\}$

9) $\{-1, -7\}$

12) $\left\{4\frac{1}{2}, -6\right\}$

16) $\left\{\frac{1}{2}, -2\right\}$

2) $\{5, -4\}$

6) $\{5, 2\}$

10) $\{5 + \sqrt{11}, 5 - \sqrt{11}\}$

13) $\left\{2\frac{1}{4}, -2\frac{1}{4}\right\}$

17) No solution.

3) $\{5, -7\}$

7) 169

11) $\left\{6, -2\frac{1}{3}\right\}$

14) $\left\{1\frac{1}{5}, -1\frac{1}{5}\right\}$

18) $\{0\}$

4) $\{-7, 0\}$

8) 256

15) $\left\{-\frac{1}{2}, 4\right\}$