

Assignment

Date _____ Period _____

Solve each equation by completing the square.

1) $b^2 + 10b + 19 = -2$

2) $x^2 - 8x - 16 = 9$

3) $9n^2 + 18n - 33 = -6$

4) $4n^2 - 16n - 22 = -2$

5) $6a^2 + 12a - 93 = 5$

6) $4b^2 + 8b + 5 = 10$

7) $7x^2 + 14x - 30 = -9$

8) $p^2 - 13p + 41 = 3$

9) $a^2 - 11a + 34 = 6$

10) $n^2 + 7n - 9 = 9$

11) $4b^2 - 10b - 86 = -8$

12) $6x^2 - 7x - 8 = -5$

13) $8r^2 - 2r - 69 = -6$

Solve each equation with the quadratic formula.

14) $6b^2 - 4b = 80$

15) $7n^2 = 12 + n$

16) $4x^2 - x = 7$

17) $10x^2 - 24 = 0$

18) $6n^2 = -11n + 95$

Answers to Assignment (ID: 1)

1) $\{-3, -7\}$

4) $\{5, -1\}$

7) $\{1, -3\}$

10) $\{2, -9\}$

13) $\left\{\frac{1 + \sqrt{505}}{8}, \frac{1 - \sqrt{505}}{8}\right\}$

16) $\left\{\frac{1 + \sqrt{113}}{8}, \frac{1 - \sqrt{113}}{8}\right\}$

2) $\{4 + \sqrt{41}, 4 - \sqrt{41}\}$

5) $\left\{\frac{-3 + 2\sqrt{39}}{3}, \frac{-3 - 2\sqrt{39}}{3}\right\}$

8) $\left\{\frac{13 + \sqrt{17}}{2}, \frac{13 - \sqrt{17}}{2}\right\}$

11) $\left\{\frac{5 + \sqrt{337}}{4}, \frac{5 - \sqrt{337}}{4}\right\}$

14) $\left\{4, -\frac{10}{3}\right\}$

17) $\left\{\frac{2\sqrt{15}}{5}, -\frac{2\sqrt{15}}{5}\right\}$

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

6) $\left\{\frac{1}{2}, -\frac{5}{2}\right\}$

9) $\{7, 4\}$

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

15) $\left\{\frac{1 + \sqrt{337}}{14}, \frac{1 - \sqrt{337}}{14}\right\}$

18) $\left\{\frac{19}{6}, -5\right\}$