

Practice Solving Equations by Completing the Square

Date _____

Solve each equation by completing the square.

1) $x^2 - 20x + 64 = 0$

2) $3a^2 + 6a - 9 = 0$

3) $8n^2 - 16n - 10 = 0$

4) $k^2 - 8k + 15 = 0$

5) $m^2 + 10m + 14 = -2$

6) $p^2 - 16p + 68 = 5$

$$7) n^2 - 20n - 30 = -9$$

$$8) m^2 + 16m + 53 = -2$$

$$9) x^2 = 14x + 51$$

$$10) r^2 = 9 + 8r$$

$$11) x^2 + 12x = 85$$

$$12) b^2 + 18b = -56$$

Answers to Practice Solving Equations by Completing the Square

1) $\{16, 4\}$

2) $\{1, -3\}$

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

4) $\{5, 3\}$

5) $\{-2, -8\}$

6) $\{9, 7\}$

7) $\{21, -1\}$

8) $\{-5, -11\}$

9) $\{17, -3\}$

10) $\{9, -1\}$

11) $\{5, -17\}$

12) $\{-4, -14\}$