

Name : _____

Score : _____

Teacher : _____

Date : _____

Solve Quadratic Equations by Completing the Square

Solve each equation by completing the square.

1) $6k^2 + 47k + 90 = 0$

6) $q^2 - 3q - 108 = 0$

2) $15w^2 + 15w - 30 = 0$

7) $h^2 + 9h + 18 = 0$

3) $b^2 + b - 12 = 0$

8) $6g^2 - 8g - 30 = 0$

4) $8g^2 - 36g + 16 = 0$

9) $18p^2 p - 18 = 0$

5) $p^2 + 7p + 6 = 0$

10) $r^2 + 8r - 33 = 0$



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Solve each equation by completing the square.

1) $6k^2 + 47k + 90 = 0$

$$k = \left\{ \frac{-10}{3}, \frac{-9}{2} \right\}$$

6) $q^2 - 3q - 108 = 0$

$$q = \{ -9, 12 \}$$

2) $15w^2 + 15w - 30 = 0$

$$w = \{ 1, -2 \}$$

7) $h^2 + 9h + 18 = 0$

$$h = \{ -3, -6 \}$$

3) $b^2 + b - 12 = 0$

$$b = \{ 3, -4 \}$$

8) $6g^2 - 8g - 30 = 0$

$$g = \left\{ 3, \frac{-5}{3} \right\}$$

4) $8g^2 - 36g + 16 = 0$

$$g = \left\{ \frac{1}{2}, 4 \right\}$$

9) $18p^2 - 18 = 0$

$$p = \{ 1, -1 \}$$

5) $p^2 + 7p + 6 = 0$

$$p = \{ -6, -1 \}$$

10) $r^2 + 8r - 33 = 0$

$$r = \{ 3, -11 \}$$

