

Completing the Square Part 1

Name _____

Find the value of c that completes the square.

1) $z^2 - 10z + c$

2) $y^2 + 32y + c$

3) $z^2 + 14z + c$

4) $x^2 - 18x + c$

5) $a^2 - 11a + c$

6) $z^2 - 34z + c$

Find the value that completes the square and then rewrite as a perfect square.

7) $x^2 + 28x + \underline{\hspace{1cm}}$

8) $x^2 + 19x + \underline{\hspace{1cm}}$

$$9) n^2 + 17n + \underline{\quad}$$

$$10) m^2 - 10m + \underline{\quad}$$

$$11) x^2 + 7x + \underline{\quad}$$

$$12) x^2 - 34x + \underline{\quad}$$

Solve each equation by completing the square.

$$13) x^2 - 12x + 22 = -5$$

$$14) x^2 - 10x - 93 = 3$$

$$15) b^2 - 4b - 35 = 10$$

$$16) n^2 + 2n - 109 = -10$$

$$17) r^2 + 20r - 42 = 3$$

$$18) v^2 - 18v + 32 = 8$$