

Completing the Square

Find the value of c that completes the square.

1) $x^2 - 40x + c$

2) $x^2 + 30x + c$

Solve each equation by completing the square.

3) $x^2 - 16x + 48 = 0$

4) $x^2 - 12x + 11 = 0$

5) $x^2 + 20x - 75 = 0$

6) $x^2 + 20x - 71 = 0$

7) $x^2 + 2x + 33 = 0$

8) $x^2 + 10x + 37 = 0$

9) $x^2 - 4x + 53 = 0$

10) $x^2 + 14x + 65 = 0$

11) $r^2 - 2r + 60 = 0$

12) $x^2 + 8x + 77 = 0$