

Completing the Square

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

1) $x^2 + 16x + \underline{\quad}$

2) $x^2 + 24x + \underline{\quad}$

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

4) $m^2 + 30m + \underline{\quad}$

Solve each equation by completing the square.

5) $b^2 + 18b + 72 = 0$

6) $x^2 + 16x - 58 = 0$

7) $x^2 - 2x - 15 = 0$

8) $x^2 + 2x - 26 = 2$

9) $b^2 - 16b - 23 = 7$

10) $n^2 + 10n + 6 = -10$

$$11) p^2 + 8p + 75 = -5$$

$$12) m^2 + 16m + 71 = -7$$

$$13) x^2 + 4x + 54 = -6$$

$$14) n^2 - 16n + 96 = 5$$