

8.3A Intro to Complete the Square

Date _____ Period _____

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

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

2) $n^2 - 34n + \underline{\hspace{1cm}}$

3) $y^2 + 36y + \underline{\hspace{1cm}}$

4) $a^2 + 28a + \underline{\hspace{1cm}}$

5) $m^2 - 7m + \underline{\hspace{1cm}}$

6) $m^2 - 20m + \underline{\hspace{1cm}}$

7) $a^2 - 10a + \underline{\hspace{1cm}}$

8) $x^2 - 6x + \underline{\hspace{1cm}}$

$$9) \ x^2 - \frac{9}{5}x + \underline{\hspace{1cm}}$$

$$10) \ x^2 - 22x + \underline{\hspace{1cm}}$$

$$11) \ a^2 + 14a + \underline{\hspace{1cm}}$$

$$12) \ m^2 - 34m + c$$

Solve each equation by completing the square.

$$13) \ x^2 - 18x + 77 = 0$$

$$14) \ x^2 + 18x + 72 = 0$$

$$15) \ n^2 + 20n + 75 = 0$$

$$16) \ n^2 - 8n - 65 = 0$$

17) $n^2 - 20n - 96 = 0$

18) $x^2 - 18x - 40 = 0$

19) $n^2 - 2n - 8 = 0$

20) $k^2 - 10k + 9 = 0$

21) $p^2 - 12p + 11 = 0$

22) $x^2 + 6x - 40 = 0$

23) $n^2 - 2n - 52 = 0$

24) $n^2 + 4n - 32 = 0$