

9.5 Completing the Square

Period _____

Find the value of c that completes the square. Then write each as a binomial squared (factor :0) .

1) $n^2 - 34n + c$

2) $r^2 - 12r + c$

3) $y^2 + 16y + c$

4) $y^2 + 8y + c$

5) $x^2 + 14x + c$

6) $x^2 + 18x + c$

Solve each equation by completing the square. YOU MUST SHOW ALL STEPS.

7) $x^2 + 18x + 65 = -7$

8) $b^2 + 8b - 76 = 8$

9) $n^2 - 2n - 72 = -2$

10) $v^2 + 2v - 56 = -7$

11) $m^2 + 18m - 7 = 8$

12) $x^2 - 4x - 53 = 5$

$$13) \ v^2 - 14v + 55 = 7$$

$$14) \ x^2 - 2x - 27 = 6$$

$$15) \ k^2 + 8k - 52 = 4$$

$$16) \ n^2 + 4n - 55 = -5$$

$$17) \ 3x^2 + 6x - 108 = -9$$

$$18) \ 2n^2 + 20n + 40 = 4$$

$$19) \ 2x^2 + 20x - 93 = 5$$

$$20) \ 3p^2 + 12p + 8 = 2$$