Name_____

Date_____

Find the value of c that completes the square.

1) $r^2 - 36r + c$

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

3) $a^2 + 24a + c$

4) $m^2 + 4m + c$

5) $r^2 - 8r + c$

6) $y^2 + 30y + c$

7) $z^2 + 20z + c$

8) $p^2 - 28p + c$

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

9) $x^2 + 5x +$ ___

10) $z^2 + 12z +$ ___

11) $x^2 - 32x +$ ___

12) $m^2 - 5m +$ ___

13) $z^2 + 20z +$ ___

14) $x^2 + 13x +$ ___

15) $r^2 + 17r +$ ___

16) $r^2 - 24r +$ ___

Solve each equation by completing the square.

17) $v^2 + 18v + 22 = -10$

18) $n^2 + 4n - 85 = -8$