Solve by Completing the Square Name_____ ID: 1

Date_____ Period____

Solve each equation by completing the square.

1) $k^2 - 12k + 11 = 0$

2) $a^2 - 6a - 30 = 0$

3) $x^2 - 16x + 60 = 0$

4) $n^2 - 20n + 91 = 0$

5) $n^2 + 8n - 4 = 0$

6) $n^2 - 15n + 60 = 6$

7) $a^2 + 15a + 47 = -9$

8) $b^2 - 19b + 89 = 5$

9) $v^2 + 11v - 54 = -3$

10) $8x^2 - 9x + 11 = 10$

Find the value of c that completes the square.

11) $z^2 + 2z + c$

12) $x^2 - 26x + c$

13) $x^2 + 21x + c$

14) $x^2 + \frac{25}{13}x + c$

15) $y^2 - 28y + c$

16) $y^2 - 22y + c$

17) $x^2 - 6x + c$

18) $p^2 + 10p + c$

19) $x^2 + 26x + c$

20) $z^2 + 36z + c$