Name_____

Solving Equations by Completing the Square

Date_____ Period_____

Solve each equation by completing the square.

1) $a^2 + 2a - 3 = 0$

2) $a^2 - 2a - 8 = 0$

3) $p^2 + 16p - 22 = 0$

4) $k^2 + 8k + 12 = 0$

5) $r^2 + 2r - 33 = 0$

6) $a^2 - 2a - 48 = 0$

7) $m^2 - 12m + 26 = 0$

8) $x^2 + 12x + 20 = 0$

9) $k^2 - 8k - 48 = 0$

10) $p^2 + 2p - 63 = 0$

11) $m^2 + 2m - 48 = -6$

12) $p^2 - 8p + 21 = 6$

13) $m^2 + 10m + 14 = -7$

14) $v^2 - 2v = 3$

15) $5v^2 - 21 = 10v$

16) $4v^2 + 16v = 65$

17) $7b^2 - 14b - 56 = 0$

18) $2n^2 + 12n + 10 = 0$

19) $n^2 + 13n + 22 = 7$

20) $5n^2 + 19n - 68 = -2$

21) $r^2 - 9r - 38 = -9$

22) $3x^2 + 20x + 36 = 4$

23) $x^2 + 7x - 45 = 7$

24) $n^2 + 19n + 66 = 6$

Kuta Software - Infinite Algebra 1

Name_____

Solving Equations by Completing the Square

Date_____ Period____

Solve each equation by completing the square.

1) $a^2 + 2a - 3 = 0$

$\{1, -3\}$

2) $a^2 - 2a - 8 = 0$

$\{4, -2\}$

3) $p^2 + 16p - 22 = 0$

$\{1.273, -17.273\}$

4) $k^2 + 8k + 12 = 0$

$\{-2, -6\}$

5) $r^2 + 2r - 33 = 0$

$\{4.83, -6.83\}$

6) $a^2 - 2a - 48 = 0$

$\{8, -6\}$

7) $m^2 - 12m + 26 = 0$

$\{9.162, 2.837\}$

8) $x^2 + 12x + 20 = 0$

$\{-2, -10\}$

9) $k^2 - 8k - 48 = 0$

$\{12, -4\}$

10) $p^2 + 2p - 63 = 0$

$\{7, -9\}$

11) $m^2 + 2m - 48 = -6$

$\{5.557, -7.557\}$

12) $p^2 - 8p + 21 = 6$

$\{5, 3\}$

13) $m^2 + 10m + 14 = -7$

$\{-3, -7\}$

14) $v^2 - 2v = 3$

$\{3, -1\}$

15) $5v^2 - 21 = 10v$

$\{3.28, -1.28\}$

16) $4v^2 + 16v = 65$

$\{2.5, -6.5\}$

17) $7b^2 - 14b - 56 = 0$

$\{4, -2\}$

18) $2n^2 + 12n + 10 = 0$

$\{-1, -5\}$

19) $n^2 + 13n + 22 = 7$

$\{-1.279, -11.72\}$

20) $5n^2 + 19n - 68 = -2$

$\{2.2, -6\}$

21) $r^2 - 9r - 38 = -9$

$\{11.517, -2.517\}$

22) $3x^2 + 20x + 36 = 4$

$\{-2.666, -4\}$

23) $x^2 + 7x - 45 = 7$

$\{4.515, -11.515\}$

24) $n^2 + 19n + 66 = 6$

$\{-4, -15\}$