Activity 0820

Date_____ Period____

Solve each equation by taking square roots.

1) $p^2 + 1 = 2$

2) $3n^2 = 93$

3) $5x^2 - 2 = 123$

4) $4x^2 + 7 = -28$

Solve each equation by factoring.

5) $(k + 1)(k + 7) = 0$

6) $(2x + 5)(x - 5) = 0$

7) $x^2 + 15x + 56 = 0$

8) $k^2 + 6k = 0$

9) $4m^2 + 80 = 36m$

10) $5v^2 - 70 = 25v$

11) $x^2 = 3 - 2x$

12) $x^2 = 36$

Solve each equation by completing the square.

13) $n^2 + 10n - 12 = 0$

14) $b^2 - 12b - 64 = 0$

15) $n^2 + 2n - 35 = 0$

16) $k^2 - 2k - 55 = 0$

Algebra 2 Name_____ ID: 1

Activity 0820

Date_____ Period____

Solve each equation by taking square roots.

1) $p^2 + 1 = 2$

$\{1, -1\}$

2) $3n^2 = 93$

$\{\sqrt{31}, -\sqrt{31}\}$

3) $5x^2 - 2 = 123$

$\{5, -5\}$

4) $4x^2 + 7 = -28$ $\left\{\frac{i\sqrt{35}}{2}, -\frac{i\sqrt{35}}{2}\right\}$

Solve each equation by factoring.

5) $(k + 1)(k + 7) = 0$

$\{-1, -7\}$

6) $(2x + 5)(x - 5) = 0$

$\left\{-\frac{5}{2}, 5\right\}$

7) $x^2 + 15x + 56 = 0$

$\{-7, -8\}$

8) $k^2 + 6k = 0$

$\{-6, 0\}$

9) $4m^2 + 80 = 36m$

$\{4, 5\}$

10) $5v^2 - 70 = 25v$

$\{7, -2\}$

11) $x^2 = 3 - 2x$

$\{1, -3\}$

12) $x^2 = 36$

$\{6, -6\}$

Solve each equation by completing the square.

13) $n^2 + 10n - 12 = 0$

$\{-5 + \sqrt{37}, -5 - \sqrt{37}\}$

14) $b^2 - 12b - 64 = 0$

$\{16, -4\}$

15) $n^2 + 2n - 35 = 0$

$\{5, -7\}$

16) $k^2 - 2k - 55 = 0$

$\{1 + 2\sqrt{14}, 1 - 2\sqrt{14}\}$