

The Quadratic Formula

Date _____

Simplify.

1) $\sqrt{192}$

2) $\sqrt{294}$

Solve each equation with the quadratic formula.

3) $x^2 - 2x - 24 = 0$

4) $3k^2 + 5k - 1 = 0$

5) $5n^2 - 5n - 1 = 0$

6) $x^2 + 4x - 10 = 0$

7) $8a^2 = 10a + 16$

8) $m^2 + 10 = 8m$

$$9) x^2 - 49 = 0$$

$$10) 7b^2 = -8b - 2$$

$$11) k^2 + k - 84 = -10$$

$$12) n^2 + 11n + 21 = 9$$

Solve each equation by factoring.

$$13) 30n^2 - 210 = 108n$$

$$14) 8x^2 + 12 = -35x$$

Solve each equation by taking square roots.

$$15) 8x^2 - 10 = 398$$

$$16) 2(x + 5)^2 + 7 = 63$$