

## Solving quadratics (factoring and square roots)

Period \_\_\_\_\_ Group \_\_\_\_\_

**Simplify.**

1)  $\sqrt{54}$

2)  $\sqrt{448}$

3)  $\sqrt{112}$

4)  $\sqrt{294}$

**Solve each equation by taking square roots.**

5)  $k^2 + 1 = 1$

6)  $8n^2 = 288$

7)  $64x^2 = 36$

8)  $7p^2 = 567$

9)  $r^2 + 6 = 81$

10)  $-9m^2 = -495$

11)  $n^2 + 6 = 43$

12)  $2n^2 - 2 = 136$

$$13) 3x^2 + 8 = 17$$

$$14) 2b^2 - 5 = -13$$

**Solve each equation by factoring.**

$$15) k^2 - 49 = 0$$

$$16) n^2 - 6n + 9 = 0$$

$$17) x^2 - 11x + 24 = 0$$

$$18) p^2 + 11p + 30 = 0$$

$$19) x^2 + 4x - 2 = -5$$

$$20) m^2 - 12m + 34 = 2$$

$$21) r^2 - 8r + 20 = 5$$

$$22) 3b^2 + 11b + 6 = 0$$

$$23) 10v^2 - 13v + 4 = 0$$

$$24) 8n^2 + 65n + 8 = 0$$