

Unit 4 Solving Quadratics Review

Fill in the blank.

1) Before you start solving an equation, one side should equal ____.

Describe the best time to use each method to solve a quadratic equation.

2) Take a square root

3) Factoring

4) Complete the square

5) Quadratic formula

List each possible method that can be used to solve the problem. YOU DO NOT NEED TO SOLVE.

6) $6b^2 - b - 12 = 0$

7) $n^2 - 8n - 11 = 0$

8) $8n^2 - 15 = 0$

9) $9b^2 + 2b + 7 = 0$

10) $x^2 - 36 = 0$

11) $r^2 - 4r - 117 = 0$

Solve each equation by factoring.

12) $b^2 + 9b + 14 = -6$

13) $m^2 + 2m - 21 = -6$

$$14) 4x^2 + 16x + 14 = 2$$

$$15) 4a^2 - 12a - 23 = -7$$

$$16) 25k^2 - 10k - 6 = 2$$

$$17) 2m^2 + 15m - 15 = -7$$

Solve each equation by taking square roots.

$$18) 2x^2 - 8 = 154$$

$$19) 9x^2 - 1 = 890$$

$$20) 6m^2 + 6 = -30$$

$$21) 4n^2 + 2 = 394$$

Find the value of c that completes the square.

$$22) n^2 + 36n + c$$

$$23) m^2 - 38m + c$$

Solve each equation by completing the square.

24) $p^2 - 12p - 55 = -7$

25) $p^2 + 2p + 91 = -4$

26) $b^2 + 20b + 8 = 9$

27) $b^2 + 6b + 56 = 3$

Solve each equation with the quadratic formula.

28) $4n^2 + 10n + 12 = 3$

29) $11v^2 - 9v - 1 = -11$

30) $x^2 - 5x - 1 = -11$

31) $12a^2 + 8a - 21 = 2$

Solve each equation with whichever method you'd like.

32) $6x^2 - 59 = -5$

33) $m^2 + 4m - 138 = 2$

34) $n^2 - 3n - 19 = -5$

35) $3k^2 + 5k - 3 = 9$

36) $9x^2 + 12x - 4 = -11$

37) $n^2 - 4n - 8 = -4$