

## Unit 9B Assessment Review- Solving Quadratic Equations

**Solve by factoring.**

1.  $x^2 + 11x + 10 = 0$

2.  $3y^2 + y = 14$

3.  $3x^2 + 17x = -10$

4.  $3x^2 - 21x = 0$

**Solve by the quadratic formula. Round your answer to the nearest hundredth when necessary.**

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

4.  $3x^2 = -2x + 4$

5.  $8x^2 - 7x - 5 = 0$

6.  $2x^2 + 5x = -3$

**Solve by any method of your choice. Round your answer to the nearest hundredth when necessary.**

7.  $7x^2 + 16x + 15 = 2x^2 + 3$

8.  $x^2 - 81 = 0$

9.  $3x^2 - 75 = 0$

10.  $5x^2 = 45$

11.  $x^2 + 100 = 0$

12.  $5x^2 - 47x = 156$

13.  $2x^2 + 5x = -3$

14.  $2x^2 + 3x - 20 = 0$

15.  $9x^2 = 4 + 7x$

Find the discriminant and the amount of real-number solutions of each equation.  $D = b^2 - 4ac$

16.  $x^2 + 10x + 25 = 0$

17.  $5x^2 - 6x + 2 = 0$

18.  $x^2 - 4x = 5$

19.  $5x^2 = 4x - 3$

20.  $2x^2 - 9x + 3 = 0$

21.  $4x^2 - 8x + 4 = 0$