

Student: _____
Date: _____

Instructor: Deb Wertz
Course: MAP102 MASTER

Assignment: Homework #27

1. Use the quadratic formula to solve the equation.

$$m^2 - 4m + 3 = 0$$

m = _____

(Simplify your answer, including any radicals. Use integers or fractions for any numbers in the expression. Use a comma to separate answers as needed.)

2. Use the quadratic formula to solve the equation. The equation has real number solutions.

$$4y = 4y^2 - 8$$

y = _____

(Simplify your answer, including any radicals. Use integers or fractions for any numbers in the expression. Use a comma to separate answers as needed.)

3. Use the quadratic formula to solve the equation.

$$x^2 - 10x + 25 = 0$$

x = _____

(Simplify your answer, including any radicals. Use integers or fractions for any numbers in the expression. Use a comma to separate answers as needed.)

4. Use the quadratic formula to solve the equation.

$$x^2 + x - 4 = 0$$

x = _____

(Simplify your answer, including any radicals. Use integers or fractions for any numbers in the expression. Use a comma to separate answers as needed.)

5. Use the quadratic formula to solve the equation.

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

m = _____

(Simplify your answer, including any radicals. Use integers or fractions for any numbers in the expression. Use a comma to separate answers as needed.)

6. Use the quadratic formula to solve the equation. The equation has real number solutions.

$$\frac{1}{3}x^2 + 4x + 4 = 0$$

x = _____

(Simplify your answer, including any radicals. Use integers or fractions for any numbers in the expression. Use a comma to separate answers as needed.)

7. Use the quadratic formula to solve the equation.

$$(m - 3)(3m + 4) = 5(m + 1) + 8$$

m = _____

(Simplify your answer, including any radicals. Use integers or fractions for any numbers in the expression. Use a comma to separate answers as needed.)

8. Use the discriminant to determine the number and types of solutions of the quadratic equation.

$$x^2 - 6 = 0$$

The equation has (1) _____

- (1) two real solutions.
 two complex but not real solutions.
 one real solution.
-

9. Use the discriminant to determine the number and types of solutions of the quadratic equation.

$$4x^2 - 8x = -4$$

The equation has (1) _____

- (1) two complex but not real solutions.
 one real solution.
 two real solutions.
-

10. Use the discriminant to determine the number and types of solutions of the quadratic equation.

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

The equation has (1) _____

- (1) two complex but not real solutions.
 one real solution.
 two real solutions.

1. 1,3

2. 2, -1

3. 5

4. $\frac{-1 - \sqrt{17}}{2}, \frac{-1 + \sqrt{17}}{2}$

5. $\frac{1 - \sqrt{91}}{10}, \frac{1 + \sqrt{91}}{10}$

6. $-6 + 2\sqrt{6}, -6 - 2\sqrt{6}$

7. $5, -\frac{5}{3}$

8. (1) two real solutions.

9. (1) one real solution.

10. (1) two complex but not real solutions.
