Identify values for "a", "b", and "c". Find the discriminant of the quadratic equation. Then identify how many solutions and what type of solutions the discriminant will give.

1. 
$$x^2 - 2x + 1 = 0$$

2. 
$$4x^2 + 12x + 9 = 0$$

Discriminant: Number of solutions: \_\_\_\_\_ Type of solutions:

3.	$x^2$	+	4	=	3
$\sim$ .	~				_

Discriminant:\_\_\_\_\_

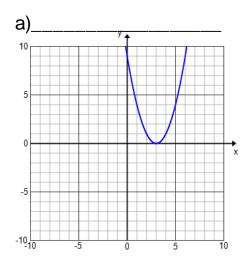
Discriminant: Number of solutions: \_\_\_\_\_ Type of solutions:

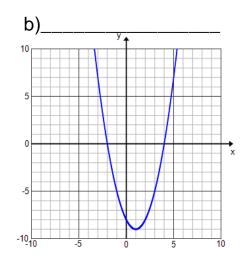
4. 
$$x^2 - 14 = 15x$$

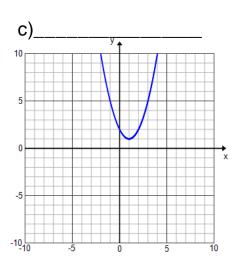
Number of solutions: \_\_\_\_\_ Type of solutions:\_\_\_\_\_

Discriminant:\_\_\_\_\_ Number of solutions: Type of solutions:

5. Label each graph below as having a positive, negative, or zero discriminant.







For problems 6-9, find the discriminant, number and type of solutions, and the possible equation. 6. 8. -5 -10<sub>10</sub> Discriminant: Discriminant: Number of solutions: \_\_\_\_\_ Number of solutions: \_\_\_\_\_ Type of solutions: \_\_\_\_\_ Type of solutions: \_\_\_\_\_ Possible Equation: \_\_\_\_\_ Possible Equation: \_\_\_\_\_ 7. 9. -5

Discriminant: \_\_\_\_\_\_
Number of solutions: \_\_\_\_\_

Type of solutions: \_\_\_\_\_

Possible Equation: \_\_\_\_\_

Discriminant: \_\_\_\_\_\_
Number of solutions: \_\_\_\_\_

Type of solutions:

Possible Equation: \_\_\_\_\_