Day 9 – Solving by Quadratic Formula Practice Assignment **Name:** _____

Directions: Find the discriminant and tell the number of solutions. Then solve each of the following equations using the Quadratic Formula.

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

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

Discriminant:
# of Solutions:
X =

2. $4x^2 - 8x + 3 = 0$

Discriminant:
# of Solutions:
X =

3. $5x^2 - 10x + 18 = 13$

Discriminant:
# of Solutions:
X =

4. $6x^2 = -4x - 10$

Discriminant:
# of Solutions:
X =

5. $2x^2 - 7x - 13 = -10$

Discriminant:
# of Solutions:
X =

6. $8x^2 + 4x + 16 = -x^2$

Discriminant:
# of Solutions:
X =

Error Analysis:
Describe and correct the error Jaya made when attempting to solve using the quadratic formula.

Problem: $7x + 2x^2 - 4 = 3$

Jaya's Process:

$7x + 2x^2 - 4 = 3$

$7x + 2x^2 - 7 = 0$

$$\frac{-2 \pm \sqrt{2^2 - 4(7)(-7)}}{2(7)}$$

$$\frac{-2 \pm \sqrt{200}}{14}$$

$$x = \frac{-2 \pm 10\sqrt{2}}{14}$$

$$x = \frac{-1 + 5\sqrt{2}}{7} \text{ and } \frac{-1 - 5\sqrt{2}}{7}$$

Correct Process:

Decision Making:

I have a non factorable trinomial where a is 1 and b is odd, which method am I going to use?

I have a factorable trinomial where a is NOT 1 and b is odd, which method am I going to use?

I have a non factorable trinomial where a is 1 and b is even, which method am I going to use?

I have a binomial squared and its equal to some number, which method am I going to use?