

Algebra 1  
**Day 7 – Solving by Quadratic Formula**  
**Practice Assignment**

Unit 9 – Quadratic Equations

Practice

Name: \_\_\_\_\_

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

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

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 =

Algebra 1

Unit 9 – Quadratic Equations

Practice

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?