Name:_____ Date:_____ Block:_____

<p align="center">***REVIEW*** *CHAPTER 8*</p>

SQUARE ROOT METHOD

Solve the following using the square root method…

1. $x^2 = 81$ 2. $x^2 + 2 = 66$ 3. $(x + 3)^2 - 5 = 20$

➢ DO DAY 4 REVIEW NOTESHEET 1-11 odd

QUADRATIC FORMULA:

The **STANDARD FORM** for a QUADRATIC equation is _____.

Put the following in **STANDARD FORM** and state the "a", "b", and "c" value…

1. $4x^2 - 2 = 81x$ 2. $x^2 + 3x - 1 = 13$ 3. $4x^2 = 15x - 45$

a=_____   a=_____   a=_____
b=_____   b=_____   b=_____
c=_____   c=_____   c=_____

The solutions of any quadratic equation with complex coefficients, $ax^2 + bx + c = 0$, are given by the following formula…

EXAMPLE:
Use the Quadratic Formula to solve the equation below:

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

a=_____
b=_____
c=_____

➢ DO DAY 4 REVIEW NOTESHEET 13,14,15-21 odd

REVIEW CHAPTER 8

THE DISCRIMINANT:

The expression _____ in the quadratic formula is called the discriminant.

Given an equation $ax^2 + bx + c = 0$, with $a \neq 0$, and all the coefficients are real numbers then when

      1. $b^2 - 4ac$ is equal to ZERO, then there is _____

      2. $b^2 - 4ac$ is POSITIVE, then there are _____

      3. $b^2 - 4ac$ is NEGATIVE, then there are _____

Find the discriminant and find the number and type of solutions (1 real, 2 real, or 2 imaginary) ***DO NOT SOLVE***

$$6x^2 - 2x + 2 = 0$$

    ➤ DO DAY 4 REVIEW NOTESHEET #44-52 evens

SOLVE BY FACTORING:

   Solve by factoring

1. $x^2 - 7x = 0$ 2. $x^2 - 4x - 21 = 0$

    ➤ DO DAY 4 REVIEW NOTESHEET #27-29, 31,32,33

SOLVE BY COMPLETING THE SQUARE:

4) Solve by completing the square

$$x^2 - 4x - 12 = 0$$

    ➤ DO DAY 4 REVIEW NOTESHEET #36-42 evens