**11.3 – QUADRATIC FORMULA**

**If** $ax^{2}+bx+c=0$**, then** $x=\frac{-b\pm \sqrt{b^{2}-4ac}}{2a}$**.**

The discriminant of a quadratic equation is represented by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The discriminant is used to find the number of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the quadratic equation has.

**Find the number of solutions for the following quadratic equations using the discriminant. Then, solve each equation using the quadratic formula.**

1. $3x^{2}-5x-2=0$ $a=\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_ b=\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_ c=\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$

Number of Solutions: \_\_\_\_\_\_\_ Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. $x^{2}-6x+9=0$ $a=\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_ b=\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_ c=\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$

Number of Solutions: \_\_\_\_\_\_\_ Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. $2x^{2}+3x-2=0$ $a=\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_ b=\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_ c=\\_\\_\\_\\_\\_\\_\\_\\_\\_\\_$

Number of Solutions: \_\_\_\_\_\_\_ Solution: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_