

**Day 4 - Homework - NO CALCULATOR!**

**Solve each equation from standard form. Then classify each equation's solution(s) as either rational real (QR), irrational real (IR), rational imaginary (Qi) or irrational imaginary (Ii).**

1)  $2v^2 + 3v - 20 = 0$

2)  $p^2 + 2p - 8 = 0$

3)  $n^2 - 2n + 1 = 0$

4)  $-2x^2 + 3x + 2 = 0$

5)  $2x^2 + 3 = x$

6)  $3b^2 + 5b = -5$

7)  $2r^2 - 21 = r$

8)  $2x^2 = 1 - x$

$$9) 0 = -2b^2 - 1 - 4b$$

$$10) 6m^2 + 3m + 7 = 5m + 4 + 3m^2$$

$$11) 6 + 3n = 2n^2 + 5$$

$$12) 5x^2 = -5 + 5x$$

**Find the discriminant for each of the following questions above:**

$$13) \#1$$

$$14) \#3$$

$$15) \#5$$

$$16) \#9$$

**Solve each equation from vertex form.**

$$17) (x - 3)^2 - 7 = 0$$

$$18) (n + 10)^2 - 169 = 0$$