

## Finding the Discriminant HW-1

Date \_\_\_\_\_ Due \_\_\_\_\_

1) What is the formula for the Discriminant?

**Find the discriminant.**

2)  $5x^2 - 3x - 8 = 0$

3)  $4r^2 + 4r + 3 = 0$

4)  $-2n^2 + 7n + 1 = 6$

5)  $6p^2 = 3 - p$

6)  $-6x^2 = 8 + 10x$

**Use the discriminant to determine THE NUMBER OF SOLUTIONS.**

7)  $-19m^2 + 6m - 1 = -10m^2$

8)  $m^2 = -10 + 10m$

$$9) -10r^2 - 2r - 4 = -4$$

$$10) n^2 + 4n + 4 = 0$$

**Find the discriminant then find the solutions if possible.**

$$11) 4b^2 + 5 = -9b$$

$$12) 4m^2 - 6 = 5m$$

$$13) 2k^2 = -8 + 8k$$

$$14) -2n^2 + 9 = -3n^2 - 6n$$

$$15) 4p^2 - 7p + 16 = 8$$

$$16) -p^2 - 9 = 8p + 3p^2$$

$$17) -4x^2 - 2x - 9 = -4$$

$$18) -7x^2 + x + 3 = 5$$

$$19) 4r^2 + 11 = 4$$

$$20) -5a^2 - 10a - 14 = -9$$