GSE Algebra 1 **HW #6.6 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Evaluate** the following.

1. $f\left(x\right)=4x^{2}-4x+9 when x=9$ 2) $f\left(x\right)=-10x^{2}+3x-2 when x=-2$
2. $f\left(x\right)=\frac{1}{2}x^{2}-10 when x=-1$ 4) $f\left(x\right)=-3x^{2}+4x when x=14$

List out all the **characteristics** for the following graphs bellow.

|  |
| --- |
| 1.

Dom: Range: max/min: x-ints: Y-int: Vertex: A.O.S.: Incr: Decr: Direc: Disc/Cont End Beh: $x\rightarrow -\infty y\rightarrow $ $x\rightarrow \infty y\rightarrow $  |
| 1. $y=-(x+2)(x-2)$

Dom: Range: max/min: x-ints: Y-int: Vertex: A.O.S.: Incr: Decr: Direc: Disc/Cont End Beh: $x\rightarrow -\infty y\rightarrow $ $x\rightarrow \infty y\rightarrow $  |

Tell if the following are **linear**, **exponential** or **quadratic**. Be sure to tell why or draw a picture of what it is.

7)  8) 

9)  10) 

11)  12)  13) 

14) I had 81 freckles on my nose before I began using vanishing cream. After the first week I had 27 freckles, the second week I had 9, the third week I had 3.



**Multiply** the following to put in standard form.

15) (4x – 1)(2x – 7) 16) -3(x – 1)(x + 5) 17) -10x(3x – 4)

18) Given the following characteristics, draw a picture on the graph of what it looks like.

y-int : (0, -4) x-ints: (-5, 0) (5, 0) Range: [-4, oo)