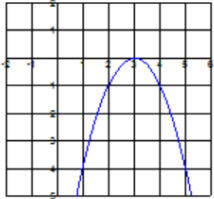
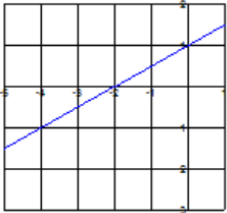
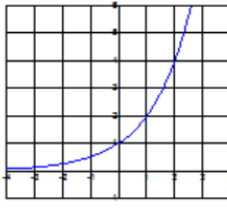


Name: _____

Date: _____

<p>A.</p> <table border="1"> <tr> <td>x</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>y</td> <td>4</td> <td>12</td> <td>20</td> <td>28</td> </tr> </table>	x	0	1	2	3	y	4	12	20	28	<p>B.</p> 	<p>C.</p> <p>This type of function has a constant rate of change.</p>	<p>D.</p> <p>Two Forms: $y = ax^2 + bx + c$ or $y = a(x-h)^2 + k$</p>										
x	0	1	2	3																			
y	4	12	20	28																			
<p>E.</p> <p>This type of function has an asymptote.</p>	<p>F.</p> <table border="1"> <tr> <td>x</td> <td>y</td> </tr> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>2</td> <td>4</td> </tr> <tr> <td>3</td> <td>8</td> </tr> <tr> <td>4</td> <td>16</td> </tr> </table>	x	y	1	2	2	4	3	8	4	16	<p>G.</p> $y = ab^x$	<p>H.</p> <table border="1"> <tr> <td>x</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>y</td> <td>500</td> <td>100</td> <td>20</td> <td>4</td> </tr> </table>	x	1	2	3	4	y	500	100	20	4
x	y																						
1	2																						
2	4																						
3	8																						
4	16																						
x	1	2	3	4																			
y	500	100	20	4																			
<p>I.</p> 	<p>J.</p> <p>This type of function has a vertex and axis of symmetry</p>	<p>K.</p> <table border="1"> <tr> <td>x</td> <td>0</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>y</td> <td>26</td> <td>29</td> <td>30</td> <td>29</td> </tr> </table>	x	0	1	2	3	y	26	29	30	29	<p>L.</p> 										
x	0	1	2	3																			
y	26	29	30	29																			
<p>M.</p> <p>Arithmetic Sequence</p>	<p>N.</p> $y = mx + b$	<p>O.</p> <p>This type of function has a common Ratio</p>	<p>P.</p> <p>Geometric Sequences</p>																				

Write the letters of the functions or characteristics under the appropriate category.

Linear:

Quadratic:

Exponential:

Write the equation for each of the tables (A, F, H, & K). Then write a story to describe it.

A:

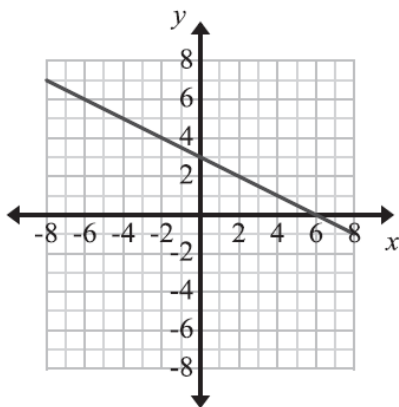
F:

H:

K:

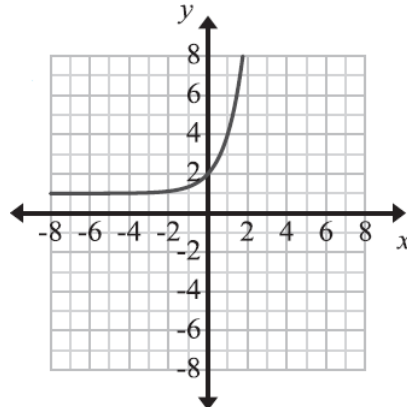
1. Fill in the information for each graph.

a)



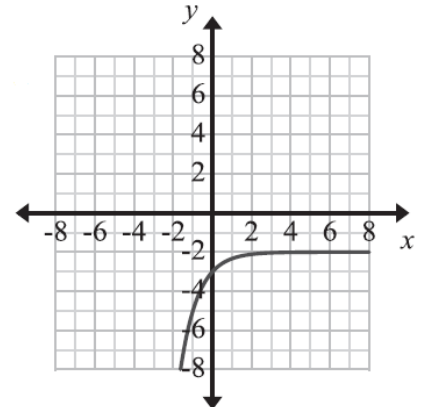
Domain: _____
 Range: _____
 Intercepts: _____
 Increasing / Decreasing: _____
 End Behavior: _____

b)



Domain: _____
 Range: _____
 Intercepts: _____
 Increasing / Decreasing: _____
 Asymptote: _____

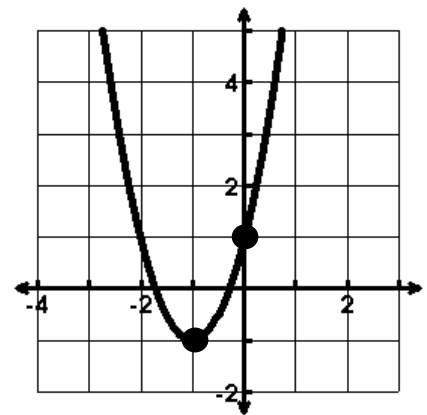
c)



Domain: _____
 Range: _____
 Intercepts: _____
 Increasing / Decreasing: _____
 End Behavior: _____

2. $f(x) = 2x^2 + 4x + 1$

- a. Domain: _____
- b. Range: _____
- c. Extrema: _____
- d. Axis of Sym: _____
- e. Increasing: _____
- f. Decreasing: _____
- g. End Behavior: $X \rightarrow \infty, Y \rightarrow ______$ & $X \rightarrow -\infty, Y \rightarrow ______$
- h. Review: Average rate of change from $x=-1$ to $x=0$.



3. $f(x) = (x - 2)^2 + 1$

- i. Domain: _____
- j. Range: _____
- k. Extrema: _____
- l. Axis of Sym: _____
- m. Increasing: _____
- n. Decreasing: _____
- o. End Behavior: $X \rightarrow \infty, Y \rightarrow ______$ & $X \rightarrow -\infty, Y \rightarrow ______$
- p. Average rate of change $0 \leq x \leq 2$

