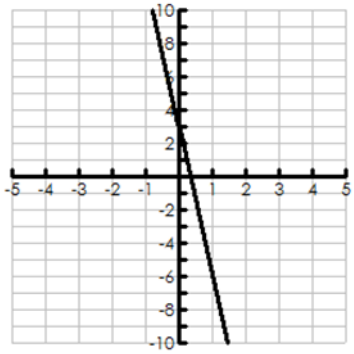
Name _____ Date _____

Characteristics of Functions Practice

1.



Domain:

Range:

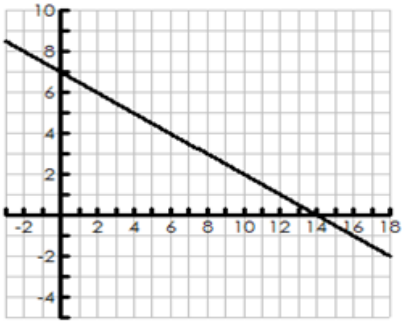
Intercepts:

Increasing or Decreasing:

End behavior:
$x \to -\infty$, $y \to$ _____

$x \to \infty$, $y \to$ _____

2.



Domain:

Range:

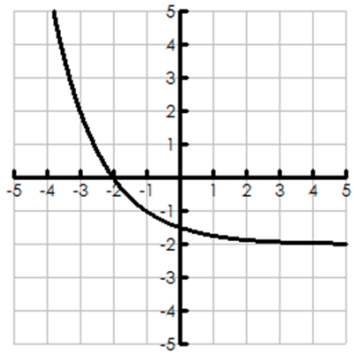
Intercepts:

Increasing or Decreasing:

End behavior:
$x \to -\infty$, $y \to$ _____

$x \to \infty$, $y \to$ _____

3.



Domain:

Range:

Asymptote:

X-intercept:

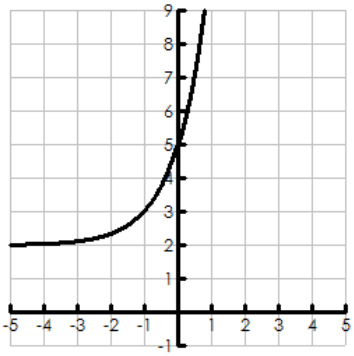
Y-intercept:

Increasing or Decreasing:

End behavior:
$x \to -\infty$, $y \to$ _____

$x \to \infty$, $y \to$ _____

4.



Domain:

Range:

Asymptote:

X-intercept:

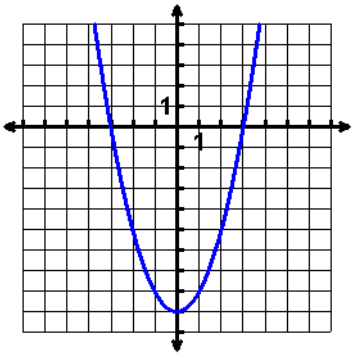
Y-intercept:

Increasing or Decreasing:

End behavior:
$x \to -\infty$, $y \to$ _____

$x \to \infty$, $y \to$ _____

5.



Domain:

Range:

Intercepts:

A.O.S.:

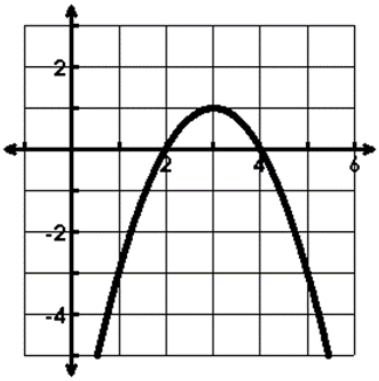
Vertex:

Increasing:
Decreasing:

End behavior:
$x \to -\infty$, $y \to$ _____

$x \to \infty$, $y \to$ _____

6.



Domain:

Range:

Intercepts:

A.O.S.:

Vertex:

Increasing:
Decreasing:

End behavior:
$x \to -\infty$, $y \to$ _____

$x \to \infty$, $y \to$ _____

7. You had 20 shirts in your closet before you went shopping. Every week, you went to the mall and bought 3 times as many new shirts. Write an equation for the exponential equation, and determine the key features of this function.

Equation: _____

Discrete or Continuous: _____

Domain: _____

Range: _____

X-intercept: _____

Y-intercept: _____

Max or Min: _____

Increasing or Decreasing: _____

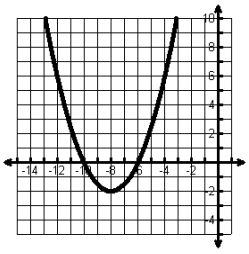
Number of Visits, x	Number of Shirts, f(x)
0	20
1	60
2	180
3	540
4	1620

8. The quadratic function $f(x)$ has these characteristics:

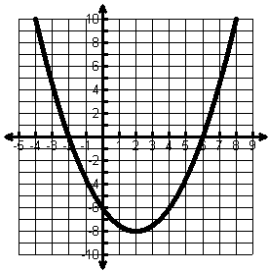
- The vertex is located at $(8, -2)$.
- The range is $[-2, \infty)$.

Which graph could be $f(x)$?

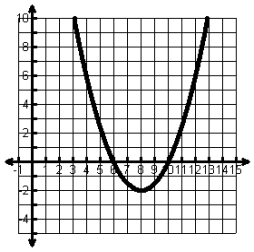
A.



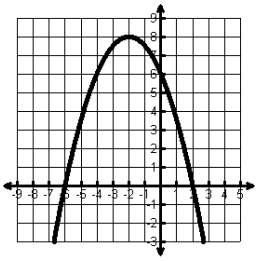
B.



C.



D.



9. A taxi company in Atlanta charges $2.75 per ride plus $1.50 for every mile driven. Write the equation for the line, and determine the key features of this function.

Equation: _____

Discrete or Continuous: _____

Domain: _____

Range: _____

Intercepts: _____

Increasing or Decreasing: _____