

Graphing Equations Using a Table

Name Key

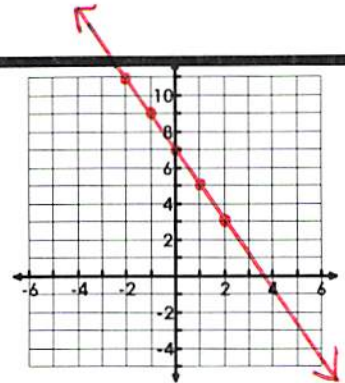
Class Period _____

Graphing Linear Functions: Graph each linear function using a table.

$$y = mx + b$$

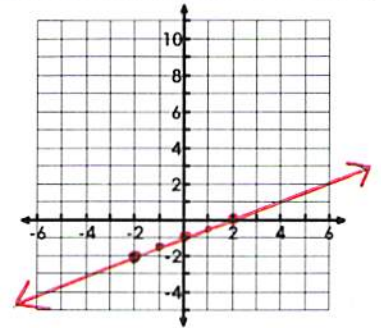
1. $y = -2x + 7$

x	y
-2	11
-1	9
0	7
1	5
2	3



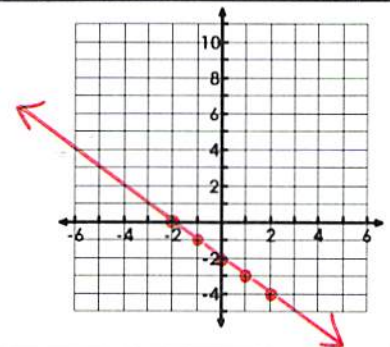
2. $y = \frac{1}{2}x - 1$

x	y
-2	-2
-1	-1.5
0	-1
1	-0.5
2	0



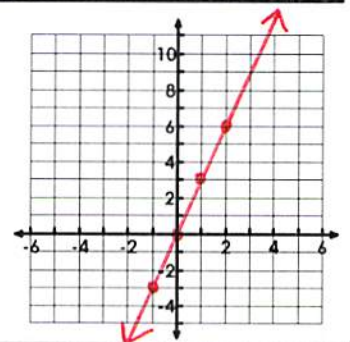
3. $y = -x - 2$

x	y
-2	0
-1	-1
0	-2
1	-3
2	-4



4. $y = 3x$

x	y
-2	-6
-1	-3
0	0
1	3
2	6



5. What part of the equations makes a linear function increase or decrease?

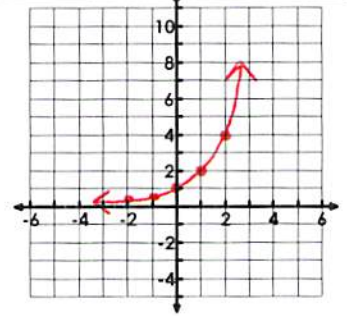
The slope. A positive slope makes the line increase + a negative slope makes the line decrease.

Graphing Exponential Functions: Graph each exponential function using a table

$$y = a(b)^x$$

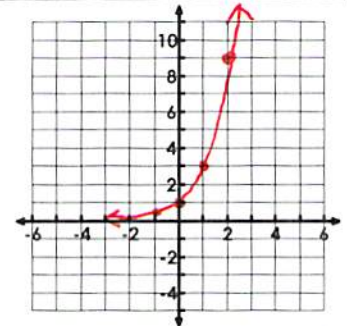
6. $y = 2^x$

x	y
-2	1/4
-1	1/2
0	1
1	2
2	4



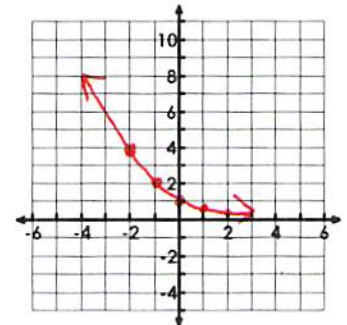
7. $y = 3^x$

x	y
-2	1/9
-1	1/3
0	1
1	3
2	9



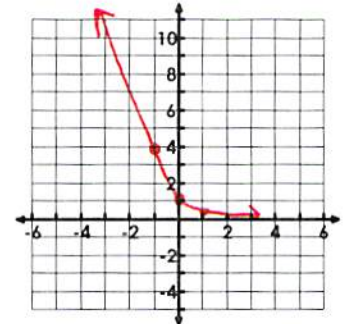
8. $y = \left(\frac{1}{2}\right)^x$

x	y
-2	4
-1	2
0	1
1	1/2
2	1/4



9. $y = \left(\frac{1}{4}\right)^x$

x	y
-2	16
-1	4
0	1
1	1/4
2	1/16



10. What is one difference you see between linear and exponential functions?

Linear functions increase + decrease at a constant rate while exponential functions increase + decrease at an exponential rate.

11. What part of the equations makes an exponential function increase or decrease?

The base. Whole # bases increase + bases between 0 + 1 decrease.