

COMPARING TWO FUNCTIONS

Directions: Compare each pair of functions based on their rate of change. Circle the correct statement at the bottom of each box.

1. Function 1:

x	y
-6	0
-5	3
-4	6
-3	9

Function 2:

$$y = 8x - 7$$

- Function 2 has a greater rate of change than Function 1.
- Function 1 and Function 2 have the same rate of change.

2. Function 1:

$$y = -2x$$

Function 2:

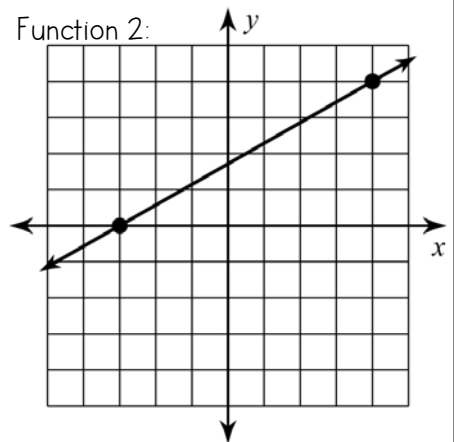
A number, y , is 3 more than twice a number.

- Function 1 has a greater rate of change because it has an increasing rate of change.
- Function 2 has a greater rate of change because it has an increasing rate of change.

3. Function 1:

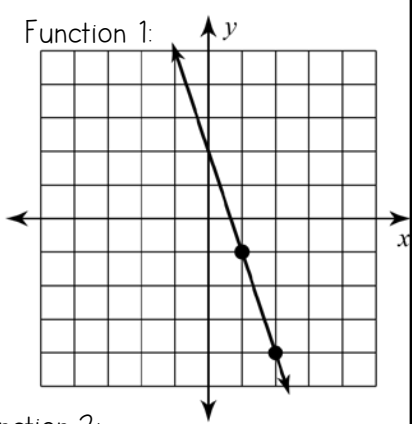
x	2	9	16	23
y	0	4	8	12

Function 2:



- Function 2 has a greater rate of change
- Function 1 and Function 2 have the same positive rate of change.

4. Function 1:

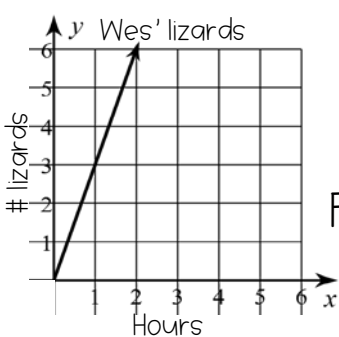


Function 2:

A number, y , is 3 less than three times a number.

- Function 1 and Function 2 have the same rate of change.
- Function 1 has a negative rate of change.

5. Wes and Frank caught lizards at a constant rate throughout the day. The lizards Wes caught is represented by the graph below. The lizards Frank caught is represented in the table. Who caught lizards at a slower rate?



Wes
or
Frank

Frank's Lizards				
Hours	0	1	3	5
# Lizards	0	2	6	10

6. Function 1:

$$y = 4/3x - 2$$

Function 2:

Any y -value can be found using the rule multiple x by $1/3$ and then add 2.

- Function 2 has a greater rate of change than Function 1.
- Function 1 has a greater rate of change than Function 2.

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7.

Function 1:

x	y
0	6
-2	7
-4	8
-6	9

Function 2:

A number, y , is 2 less than 4 times a number.

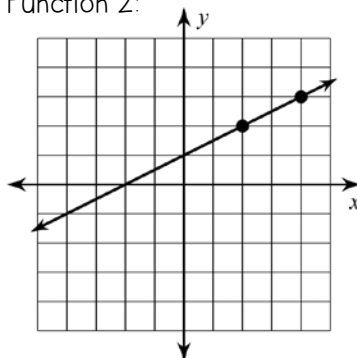
- Function 2 has a negative rate of change.
- Function 1 has a negative rate of change.

8.

Function 1:

x	4	8	12	16
y	2	4	6	8

Function 2:



- Function 1 and Function 2 have the same positive rate of change.
- Function 1 has a greater positive rate of change.

9.

Function 1:

As a candle burns, it is decreasing by 0.5 inch every hour.

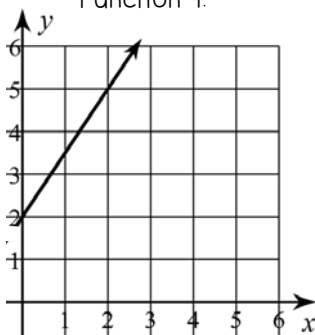
Function 2:

$$y = -5x$$

- Function 2 has a slower rate of change.
- Function 1 has a slower rate of change.

10.

Function 1:



Function 2:

Aaron charges an initial service fee of \$10 plus \$15 per hour.

- Function 2 has a greater positive rate of change.
- Function 1 and Function 2 have the same rate of change.

11.

The table below shows the growth(cm) of Plant 1 over several days. The equation $y = 8x + 1.5$ represents the growth of Plant 2.

Plant 1				
Days	0	1	2	3
Height	3	8	13	18

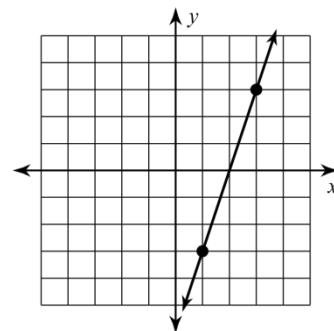
- Plant 1 is growing at a faster rate than Plant 2.
- Plant 2 is growing at a faster rate than Plant 1.
- Plant 1 and Plant 2 are growing at the same rate.

12.

Function 1:

$$y = -3x - 4$$

Function 2:



- Function 1 has a positive rate of change, and Function 2 has a negative rate of change
- Function 2 has a positive rate of change, and Function 1 has a negative rate of change