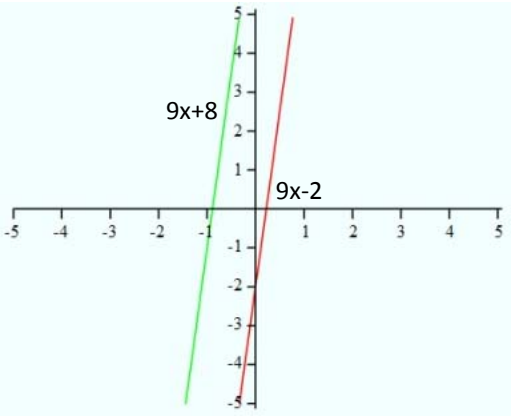
Name _____ Date _____

Manipulating the Graphs of Functions - Guided Lesson Explanation

Explanation#1

Step 1) Graph Both lines.



Step 2 a) Both lines are parallel, so the slope is the same.

Step 3 b) No, the lines does not touch the origin (0,0).

Statement "a" is our answer.

Explanation#2

Step 1) Find the slope:

$m = \frac{y2-y1}{x2-x1} = \frac{7-(-9)}{3-(-5)} = \frac{16}{8} = 2$

Step 2) Find the y-intercept.

$y = mx + b$

$7 = 2 \times 3 + b$

$b = 7 - (2)(3)$

$b = 1$

Now, m= 2 and b= 1.

Step 3) Put those values into the format:

$y = mx + b$

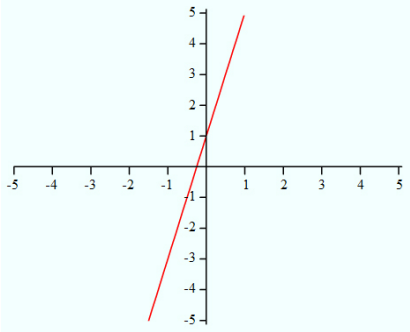
$y = 2x + 1$

Name _____ Date _____

Step 4) Now rewrite the equation with the double of slope and leave the y-intercept the same.

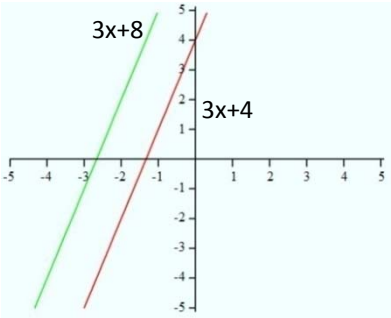
So, y = 4x + 1

Step 5) From the choices a is the only one that meet those intercepts.

a) 

Explanation # 3

Step 1) Graph Both lines.



Step 2 a) Yes, the new line is parallel to the original.

Step 3 b) Both lines are parallel so the rate of change will be the same.

Once again, statement "a" is our answer.