Warm Up November 8, 2018

1.) Tomas bought 2.4 pounds of apples and pears. The apples cost $1.65 per pound and the pears costs $2.25 per pound. Tomas split the cost evenly with this 3 siblings. How much should each of them pay for the apples and pears?

2.) What is the sum of the y-intercepts of the functions $2x - y = 5$ and $8x + 4y = 12$?

Which function has a greater rate of change?
Which function has the greater y-intercept ?

abs. value of slopes

Function A

x	$f(x)$	
−4	12	
		−12
−1	0	
		−12
2	−12	
		−4
3	−16	

+3, +3, +1

$m = -4$

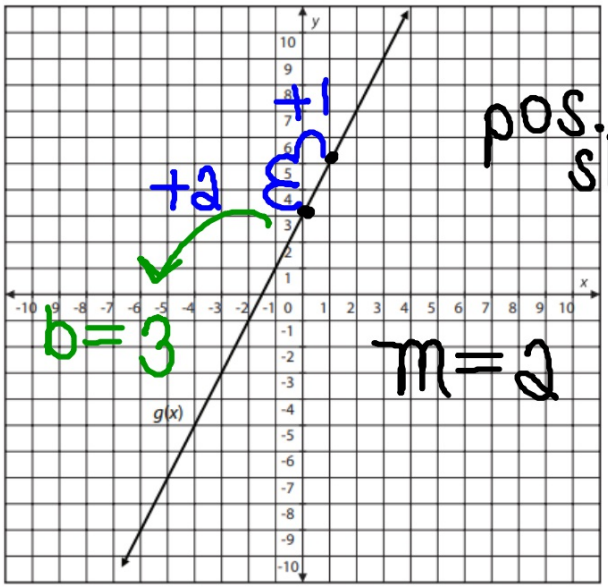
x-int. (−1, 0)

y-int. (0, −4)

1 −8

2 −12

Function B



Function A has the greater rate of change.
Function B has a greater y-intercept.

Which function has a greater rate of change?
Which function has the greater y-intercept ?

Function A

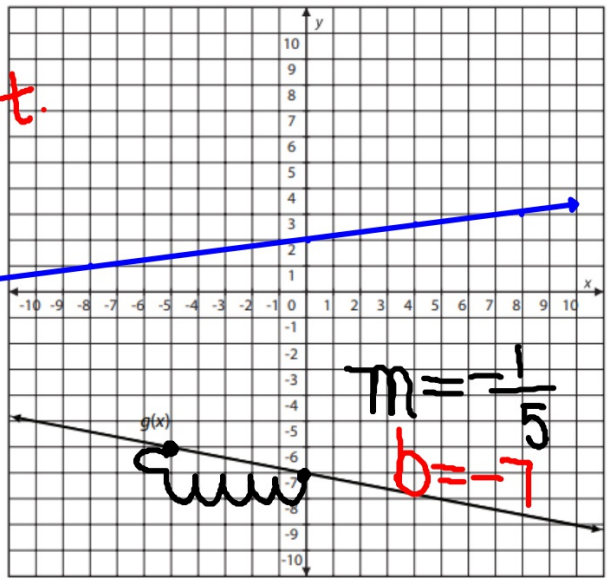
x	$f(x)$
−8	1
0	2
4	2.5
8	3

+8 (−8 → 0) +1
+4 (0 → 4) +0.5
+4 (4 → 8) +0.5

y-int.

$m = \frac{1}{8}$

Function B



$m = -\frac{1}{5}$

$b = -7$

Function B has a greater rate of change.
Function A has a greater y-intercept.

Brothers Paul and Pete walk 2 miles to school from home. Paul can walk to school in 24 minutes. Pete has slept in again and needs to run to school. Paul walks at a constant rate, and Pete runs at a constant rate. The graph of the function that represents Pete's run is shown below. Which brother is moving at a faster rate?

Paul

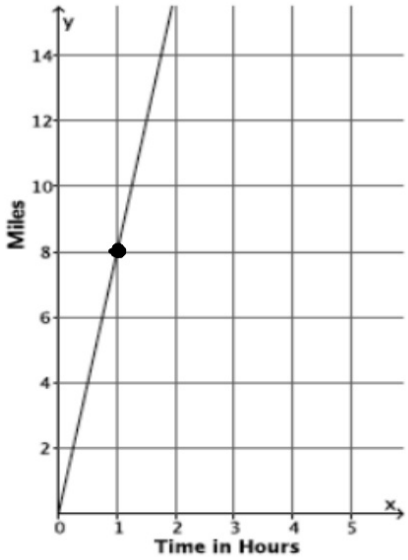
$\frac{2 \text{ miles}}{24 \text{ min}}$

$\frac{2 \text{ mi}}{24 \text{ min}} \cdot \frac{60 \text{ min}}{1 \text{ hr}}$

$5 \frac{\text{mi}}{\text{hour}}$

Pete

$\frac{8 \text{ mi}}{\text{hour}}$



Pete is moving at a faster rate.

For the two linear functions, f(x) and g(x):

f(x) = 3x + 9

↳ b

y-ints.

g(x) − f(x)

−2 − 9

g(x):

x	y
0	
1	2
3	10
4	14
7	26

−2

+2 → +8

+1 → +4

+3 → +12

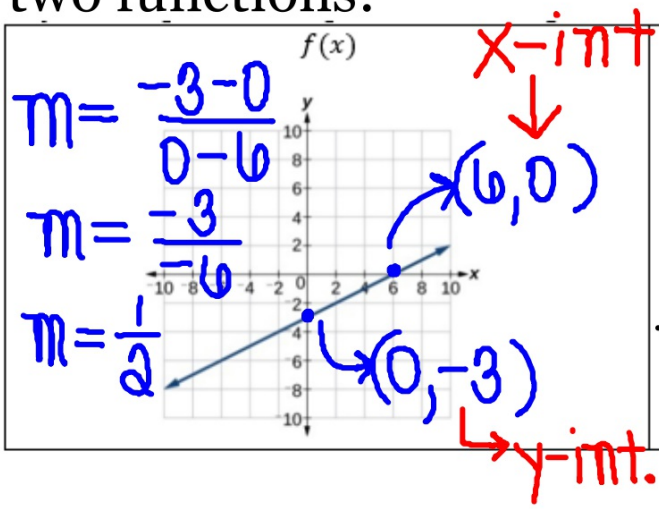
What is the difference when the y-intercept of f(x) is subtracted from the y-intercept of g(x)?

A.) -11 B.) -7 C.) 2 D.) 7

Example #5

Dayanna compared the slope of the following two functions:

$f(x)$



$m = \frac{-3-0}{0-6}$

$m = \frac{-3}{-6}$

$m = \frac{1}{2}$

$g(x)$

Function with x-intercept at 3 and y-intercept at -2.5

(3,0) (0,-2.5)

$m = \frac{-2.5-0}{0-3} = \frac{-2.5}{-3} = \frac{5}{6}$

What is the slope of the function with the smaller slope?

A.) m = 1/2

B.) m = 5/6

C.) m = 6/5

D.) m = 2