Warm Up

9/20

Solve for x:

$$7 + 3(2 - 4x) = 4(7 - x) + 1$$

$7 + 6 - 12x = 28 - 4x + 1$

$13 - 12x = 29 - 4x$

$+12x \qquad +12x$

$13 = 29 + 8x$

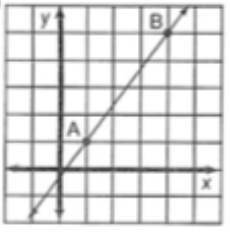
$-29 \quad -29$

$\frac{-16}{8} = \frac{8x}{8}$

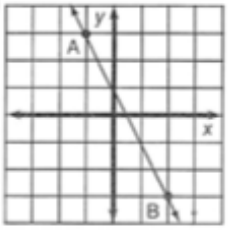
$\boxed{-2 = x}$

Homework Questions?

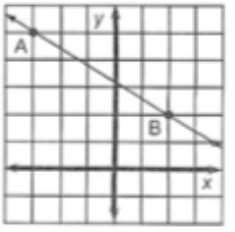
① 4/3



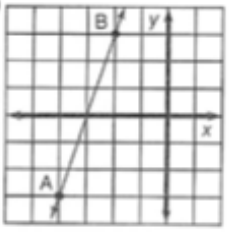
② –2



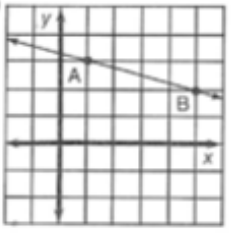
③ –3/5



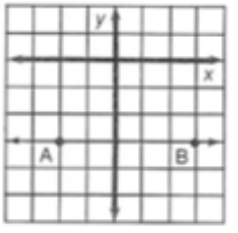
④ 3



⑤ –1/4



⑥ 0



⑦ (2, 1); (5, 3) 2/3

⑧ (8, 3); (2, 5) –1/3

⑨ (1, –4); (6, –2) 2/5

⑩ (–3, 1); (–7, 4) –3/4

⑪ (9, 2); (3, –1) 1/2

⑫ (–5, 8); (–4, 2) 6

⑬ (0, –1); (4, –7) –3/2

⑭ (1, –1); (–2, –6) 5/3

⑮ (–4, –8); (–2, 0) 4

⑯ (–3, –3); (0, 0) 1

⑰ (2, 5); (9, 1) 4/7

⑱ (0, 0); (–2, 7) –7/2

Slope-Intercept Equation

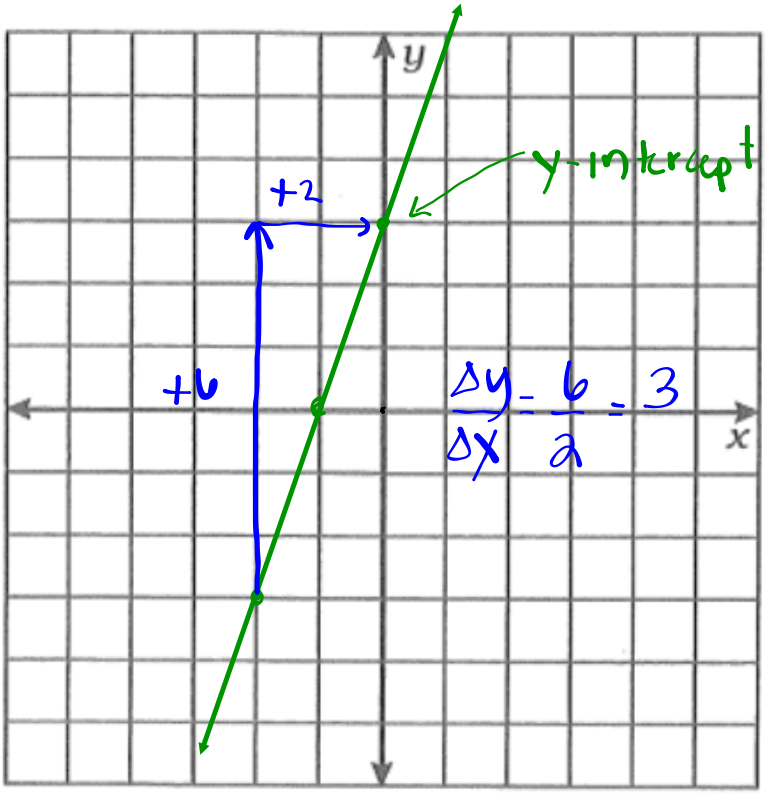
$$y = mx + b$$

Slope = $\frac{\Delta y}{\Delta x}$

y-intercept

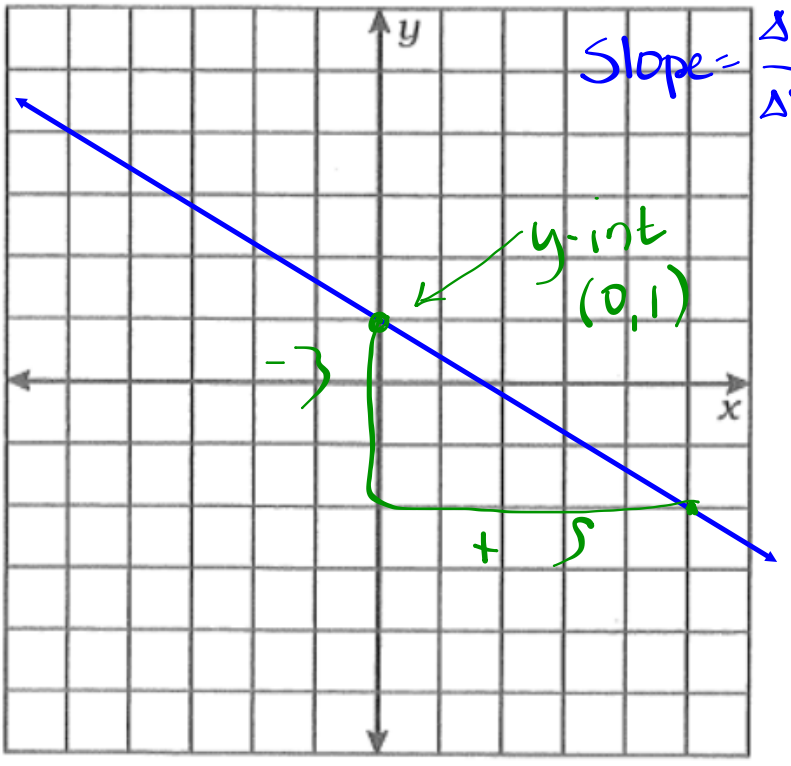
value of y when x = 0

$y = mx + b$



$y = 3x + 3$

$y = mx + b$



Slope $= \frac{\Delta y}{\Delta x} = \frac{-3}{5}$

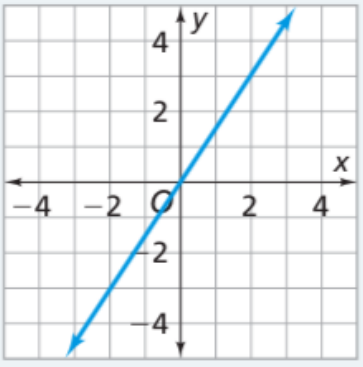
$y = \frac{-3}{5}x + 1$

Problem 2.2

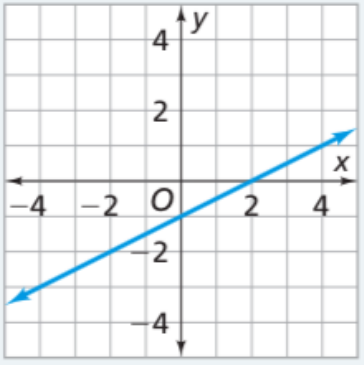
Use the data given in each question to find the equation of the linear function relating y and x.

A For the functions with the graphs below, find the slope and y-intercept. Then write the equations for the lines in the form $y = mx + b$.

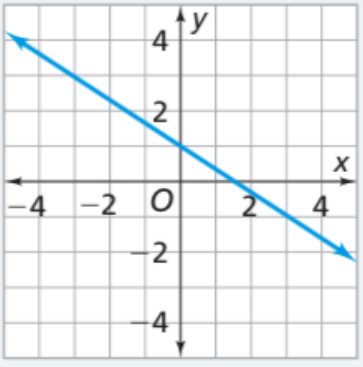
1.



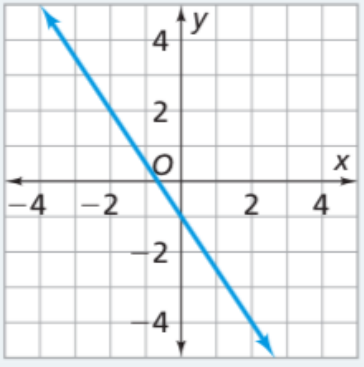
2.



3.



4.



B **1.** Find equations for the linear functions that give these tables. Write them in the form $y = mx + b$.

a.

x	−2	−1	0	1	2
y	−1	1	3	5	7

+1 +1 +1 +1

+2 +2 +2 +2

$\frac{\Delta y}{\Delta x} = \frac{2}{1}$

b.

x	−6	−2	2	6	10
y	−4	−2	0	2	4

2. For each table, find the unit rate of change of y compared to x.

3. Does the line represented by this table have a slope that is greater than or less than the equations you found in part 1(a) and part 1(b)?

x	−1	0	1	2	3
y	4	1	−2	−5	−8

Homework

Finish classwork