

BE-1A TUESDAY 5-20-08

① $-15 - 9 = ?$

② $4(-7) = ?$

③ A map scale is 1 inch = 72 miles.
The distance between 2 points on the map is $4\frac{1}{2}$ inches. Use a proportion to find the "real" distance between these points.

④ Find m between $(4, 2)$, $(3, 5)$.

⑤ GRAPH THE POINTS $(4, 2)$, $(3, 5)$ on the X-Y plane, connect them with a line.

Ch. 4-6 Functions

Recall: "X drives the show" and
X can only drive to "one y."

FANCY DEFINITION A function is a RELATION
(SET OF ORDERED PAIRS)
IN WHICH each element of the
domain is paired with exactly
ONE element of the range.
↓
X VALUES
↓
Y VALUES

Page 226 to 229 Examples.

Function Notation $y = f(x) = 2x - 6$

"y is a function of x"

↑
dependent
variable

↑
independent
variable

$$f(5) = 2(\quad) - 6$$

$$f(5) = 2(5) - 6$$

$$f(5) = 10 - 6$$

$$f(5) = 4$$

∴ $\boxed{(5, 4)}$ IS A POINT
ON THE LINE
x, y

WHAT DO YOU KNOW ABOUT EACH SLOPE?



POSITIVE

$$y = +mx + b$$

NEGATIVE

$$y = -mx + b$$

0

HORIZONTAL
LINE

$$y = N$$

UNDEFINED

VERTICAL
LINE

$$x = N$$

What do you know about a direct variation?

$$b = 0$$

$$y = mx$$



Also called k , the CONSTANT OF VARIATION

Three forms of a linear equation:

$\{x', y', \text{numbers, separated by } \pm\}$

Standard Form $Ax + By = C$

SI Form $y = mx + b$

P-S Form $y - y_1 = m(x - x_1)$

Ch. 5 Study Guide Pg 308-312

Practice: Page 310 # 37-40

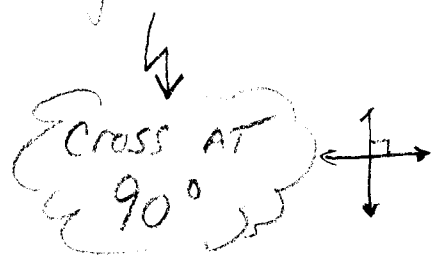
Parallel Lines $\Rightarrow$ Same Slope

$$\text{ex) } y = 2x + 6$$

$$y = 2x - 4$$

$$y = 2x$$

Perpendicular Lines $\Rightarrow$ Slopes are negative reciprocals



$$\text{ex) } y = 2x + 6$$

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

• Scatter Plots $\Rightarrow$ + or - correlation

Homework: Page 310 # 41-44,

Page 311 # 48, 51, 52