

## Alg 2 Quiz 2.1-2.4 Review Topics

## 2.1 - Relations/Functions

- relation
- domain (x)
- range (y)
- Mapping diagram
- function
- vertical line test

## 2.2 - Slope

$$\rightarrow m = \frac{y_2 - y_1}{x_2 - x_1}$$

- rises, falls, vert., horiz.
- parallel/perpendicular

## 2.3 - graphs

$$\rightarrow y = mx + b$$

→ intercept

$$\rightarrow Ax + By = C$$

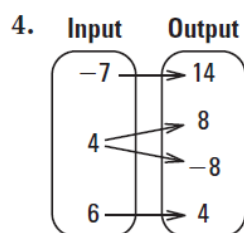
## 2.4 → writing eq's

$$\rightarrow y - y_1 = m(x - x_1)$$

$$\rightarrow Ax + By = C$$

$$\rightarrow y = mx + b$$

**2.1** Tell whether the relation is a function. *Explain.*



NO; two outputs for one input

**2.2** Find the slope of the line passing through the given points. Then tell whether the line *rises*, *falls*, *is horizontal*, or *is vertical*.

5.  $(-3, 0), (5, -4)$

$$m = \frac{-4 - 0}{5 - (-3)} = \frac{-4}{8} = \frac{-1}{2}$$

falls

**2.2** Tell whether the lines are *parallel*, *perpendicular*, or *neither*.

9. Line 1: through (5, -4) and (-4, 2)  
Line 2: through (-5, -4) and (-2, -2)

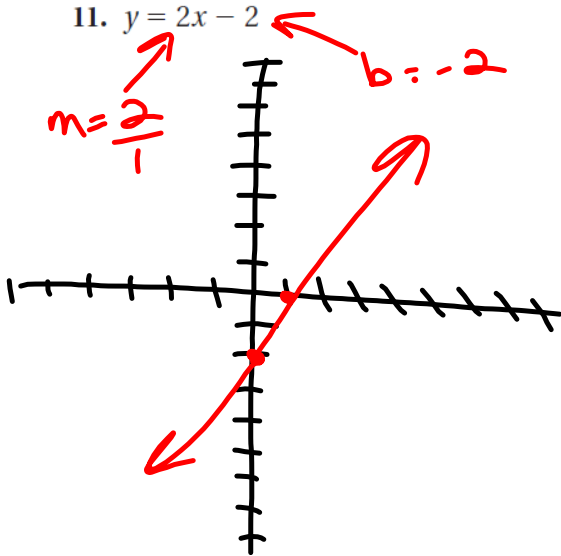
$$m_1 = \frac{2 + 4}{-4 - 5} = \frac{6}{-9} = -\frac{2}{3}$$

$$m_2 = \frac{-2 + 4}{-2 + 5} = \frac{2}{3}$$

Neither

**2.3** Graph the equation using any method.

11.  $y = 2x - 2$



**2.4** Write an equation of the line that satisfies the given conditions.

21.  $m = 0$ , passes through  $(7, -2)$

$$y - y_1 = m(x - x_1)$$

$$y + 2 = 0(x - 7)$$

$$y + 2 = 0$$

$$y = -2$$