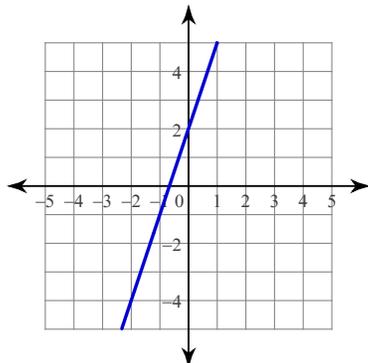


**Unit 6 Test REVIEW**

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**Write the slope-intercept form of the equation of each line.**

1)

**Write the slope-intercept form of the equation of the line through the given point with the given slope.**2) through:  $(-1, 5)$ , slope =  $-1$ 3)  $f(0)=2$ ,  $f(2)=6$ **Write the slope-intercept form of the equation of the line through the given points.**4) through:  $(-4, -2)$  and  $(-5, -1)$ 

5) Determine which lines, if any, are parallel or perpendicular.

Line a:  $y = 7x + 1$ Line b:  $14x - 2y = 10$ Line c:  $x + 5y = 15$ **Write the slope-intercept form of the equation of the line described.**6) through:  $(3, -1)$ , parallel to  $y = -2x + 1$ 7) through:  $(-1, -3)$ , perp. to  $y = -\frac{1}{7}x - 1$ 

8) Find the equation of the best-fitting line for the following data. Round the values to the nearest tenth.

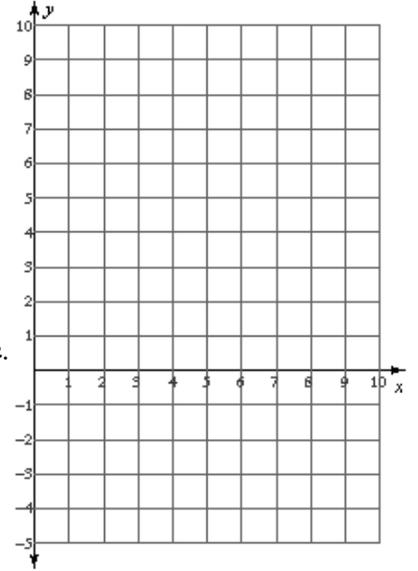
x | -13 | -7 | -4 | -1 | 0 | 4

y | 4 | 8 | 10 | 15 | 15 | 21

## APPLICATIONS

9) Mr. Kelly decides to start another company.. He decides to sell his vintage 1980s GI Joe Toys. After two months he still owes \$1 for his investments, but after 7 months he has made \$9.

- What's Mr. Kelly's slope (rate of change) for this situation?
- What's Mr. Kelly's y-intercept (initial value) for this situation?
- Write an equation of the line for the given situation. Graph the line.



10) The Algebros collected some data about the Chapter 4 Test results. They compared how long it took for a student to complete Chapter 4 to the score they received on their first test.

Days, $x$	4	5	5	7	8	9
Score, $y$	100	95	89	80	71	64

- Find the equation that models the best-fitting line for the above data. Round values to the nearest tenth.
  - Approximate the score of someone who spent 6 days working on Chapter 4.
  - Approximate the score of someone who spent 15 days working on Chapter 4.
- 11) Mr. Kelly made some investments last year. After 2 months the investment was worth \$100, but after 4 months it was only worth \$50.
- Write an equation that models how much money Mr. Kelly's investment is worth as a function of how many months have passed.
  - How much money did Mr. Kelly originally invest?