

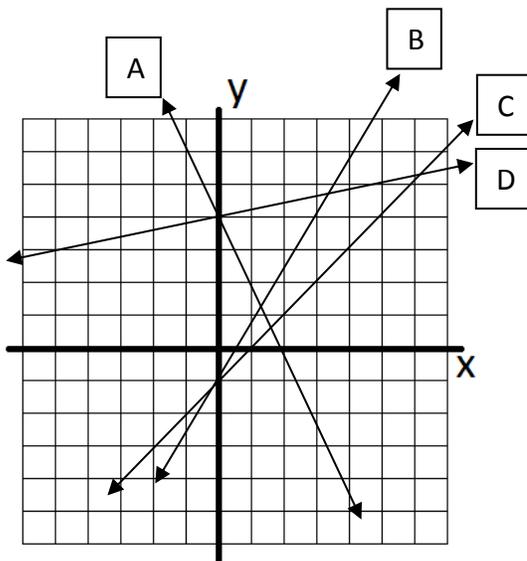
1. Read the directions to answer the following questions about slope.

Given the following pairs of points, calculate the slope.

- a. (2, -5)(-5, 5)      b. (5, 2) (-5, 2)      c. (-1, -3) (2, 6)

d. Find r, given a slope of -3 and point (2, 6) and (4, r).

2. Match the slope-intercept equation with the correct line on the graph.



$y = \frac{1}{4}x + 4$  \_\_\_\_\_

$y = 2x - 1$  \_\_\_\_\_

$y = x - 1$  \_\_\_\_\_

$y = -2x + 4$  \_\_\_\_\_

3. Ms. Eman's dog Lulu is walking in the backyard.

a. During what time interval does Lulu walk back towards the house?

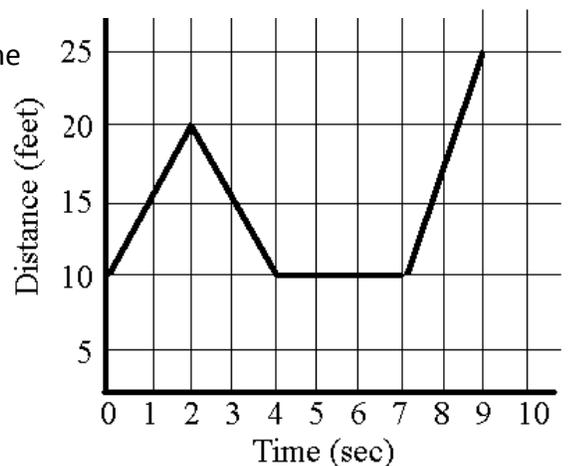
At what rate is she walking during this time?

b. During what time interval does Lulu sit and stare at a squirrel?

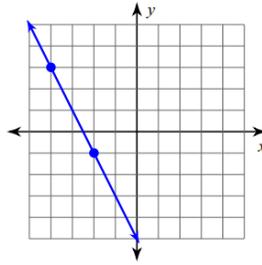
What is the rate of change during this time?

c. Identify the domain and range

c. When is Lulu walking the fastest?

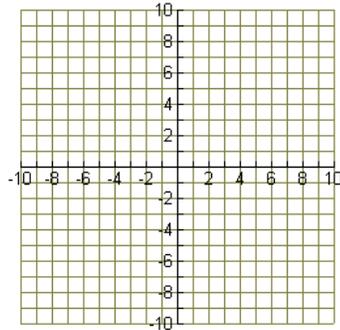


4. Find the slope of the line



5. Draw a line for each given point and slope.

- a. Slope =  $\frac{3}{2}$  Point =  $(-1, 0)$
- b. Slope =  $-2$  Point  $(3, 2)$



6. Jennifer already has some money saved up to buy a laptop. She needs more money to buy the one she wants so she has decided to save a set amount each week.

Complete the missing values in the chart and answer all questions.

Number of weeks (x)	Amount of money (y)
0	
2	240
4	280
6	
8	360

a. Does this appear to be a linear function? Why or why not? \_\_\_\_\_

b. What is the y-intercept in this situation? \_\_\_\_\_  
What does this value represent?

\_\_\_\_\_

c. What is the slope for this situation? \_\_\_\_\_  
What does the slope represent?

\_\_\_\_\_

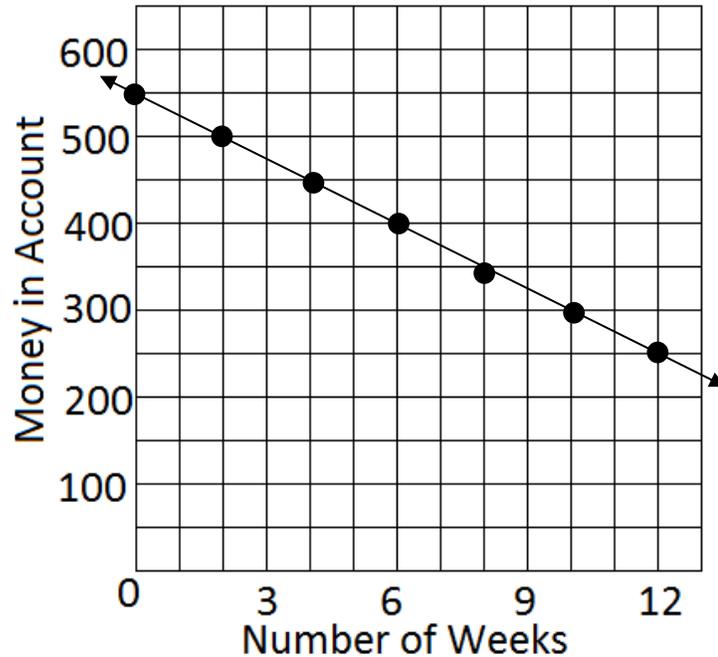
d. Write a NOW-NEXT and Formal Recursive rule that describes the pattern in the table. Include start number. \_\_\_\_\_

e. Write an equation in slope-intercept form to represent the amount of money Jennifer has at x number of weeks. \_\_\_\_\_

f. The computer that Jennifer wants to buy costs \$520. How many weeks will it take her to save up enough money? \_\_\_\_\_

\_\_\_\_\_

7. Ryan has all of his money in his bank account. He will take out a certain amount of money each week for the next 15 weeks. Below is a graph to represent how much money ( $y$ ) Brett has in his bank at ( $x$ ) number of weeks.



- Does this appear to be a linear function? \_\_\_\_\_  
Explain why or why not. \_\_\_\_\_
- What is the  $y$ -intercept in this situation? \_\_\_\_\_  
What does this value represent? \_\_\_\_\_
- What is the slope for this situation? \_\_\_\_\_  
What does the slope represent? \_\_\_\_\_
- Write a NOW-NEXT and formal recursive rule that describes the pattern in the table. Include start number. \_\_\_\_\_
- Write an equation in slope-intercept form to represent the amount of money that Brett has in his account at any week. \_\_\_\_\_
- How much money does Brett have left in his account at the end of the 15 weeks? \_\_\_\_\_

**8. Suppose the windows in your house are filthy. You decide to hire a window washer to get your windows sparkling. One window washer in particular charges a fee of \$50 for materials plus \$20 for each additional window that he cleans.**

- a. If you were to graph this situation, what would the y-intercept be? Let  $x$  be the number of windows and let  $y$  be the cost. \_\_\_\_\_
- b. What is the slope? \_\_\_\_\_
- c. Write a NOW-NEXT and formal recursive rule for this situation including start number.

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- d. Represent this situation using an equation in slope-intercept form.

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- e. The window washer has cleaned all of your windows and has just charged you \$330. How many windows were cleaned?

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**9. Convert the following equations to slope-intercept form:**

a.  $9x - 3y = 18$

b.  $2x + 7y = 8$

c.  $4x - 6y = -2$