

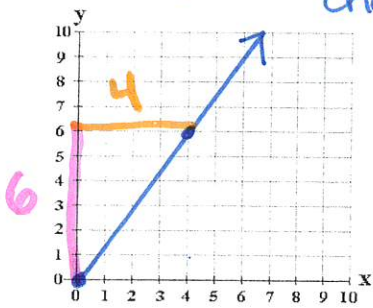
KEY

Chapter 5

Practice Quest

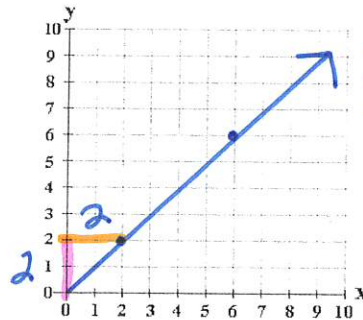
Graph the line that passes through the two points. Then find the slope of the line.

1. (0, 0), (4, 6)



Slope is $\frac{\text{change in } y}{\text{change in } x} = \frac{6}{4} = \frac{3}{2}$
 slope = $\frac{3}{2}$

2. (2, 2), (6, 6)



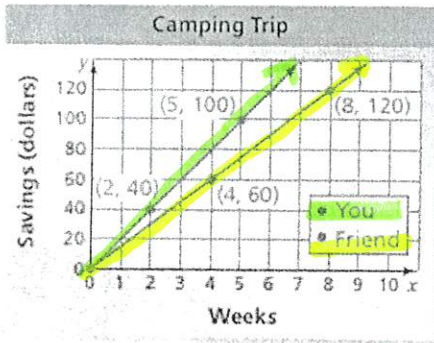
$\frac{2}{2} = 1$

Answers

1. $\frac{3}{2}$

2. 1

3. Interpret the point (8, 120) on the following graph.



8 = # of weeks
 120 = \$ saved

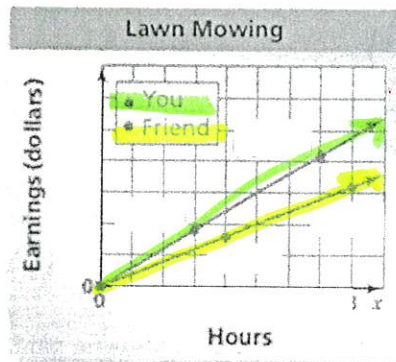
My friend saved \$ 120 in 8 weeks.

3. Write next to graph

The graph shows the money you and your friend earn mowing lawns.

FOR PROBLEMS 4 & 5 DO NOT USE SLOPE

4. Which line/lines show a **proportional relationship**? Yours, your friend's, both or neither? How do you know?



4. Both

Explain in the space around the problem

a. straight lines
 b. include (0,0)

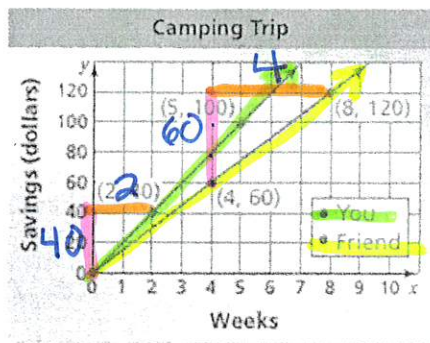
5. me

Explain in the space around the problem

The slope is steeper.

5. Who is earning money at a **faster rate**? How do you know?

Use the graph for problems 6, 7, & 8



6. Find the slope of your line.
Write in simplest form.

$$\frac{\Delta y}{\Delta x} = \frac{40}{2} \rightarrow \boxed{20}$$

7. Find the slope of your friend's line.
Write in simplest form.

$$\frac{60}{4} \rightarrow \boxed{15}$$

8. Interpret your FRIEND'S slope.

Friend's slope $\frac{15}{1}$

My friend earns \$15 every week.

9. Find the unit rate for both you and your friend.

slope is $\frac{20}{1} \rightarrow \boxed{\frac{\$20}{1 \text{ week}}}$

6. 20

7. 15

8. answer near the problem

9.me: \$20/week

Friend: \$15/week

For problems 10,11, & 12: Do x and y show direct variation? If yes, write the direct variation equation.

10.

Bottom	x	3	6	9	12
Top	y	2	4	6	8

Annotations: x2, x3, x4 above the table; x2, x3, x4 below the table.

$y = \frac{2}{3}x$

11. $y + 7 = x - 7$

$y = x - 7$

No

adding
subtracting 7
when x is 0, y is -7

12. $\frac{2y}{2} = \frac{3x}{2}$

$y = \frac{3}{2}x$

10. $y = \frac{2}{3}x$

11. no

12. $y = \frac{3}{2}x$

Find the slope of the line that passes through the following pairs of points:

13. (0,0) (6,5)

higher
- lower

$$\frac{6,5 - 0,0}{6 - 0} = \frac{6,5}{6}$$

↑ Top
↑ bottom

$\frac{5}{6}$

14. (3,8) ; (7,10)

higher
- lower

$$\frac{7,10 - 3,8}{7 - 3} = \frac{4,2}{4} = \frac{2}{2} = \frac{1}{2}$$

↑ Top
↑ bottom

$\frac{1}{2}$

13. $\frac{5}{6}$

14. $\frac{1}{2}$