

Review Sheet

- Find the Rule
- Find the slope from a table, from a graph, and from two points. Interpret the Slope in Context.
- Graph from slope intercept form
- Write the equation for the graph
- Find the equation for the line from two points given

Daniel grows at a **CONSTANT RATE**. The table below shows his growth over time.

$$\frac{8}{2} = 4$$

Time(years)	0	3	5	6	10
Inches	? 24	36	44	? 48	64

$3(6-12) = 24$ $+12$ $+8$ $+4$ $+16$

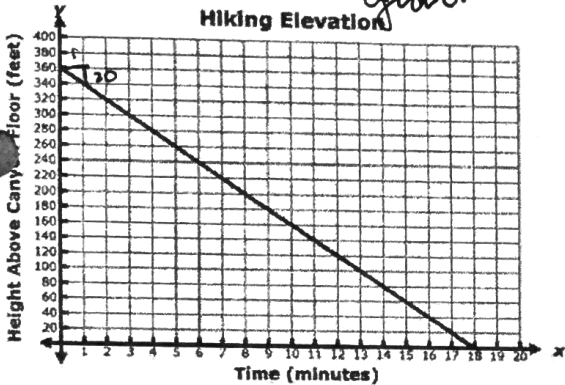
+3 +2 +1 +4

1) Fill in the missing data values.

2) Write an equation for Daniel's growth. What does the y intercept represent? What does the slope represent?

The slope means he grew 4 inches every year.

$y = 4x + 24$ → y intercept means he started at a height of 24 inches



3) Write the equation for the line.

$$y = -20x + 360$$

a. What does the slope mean in context?

you lose 20 ft of elevation every minute you hike.

b. What does the y intercept mean in context?

It means the hike started at 360 feet of elevation.

4)

Jack and Jill are selling cupcakes. Jack's total profit is given by the table to the left. Jill's total profit is given by the equation to the right. Who is gaining profit at a faster rate? How do you know?

Jack

Number	Cost
1	\$3.50
2	\$6.50
3	\$9.50
4	\$12.50
5	\$15.50

+16 +3

Jill

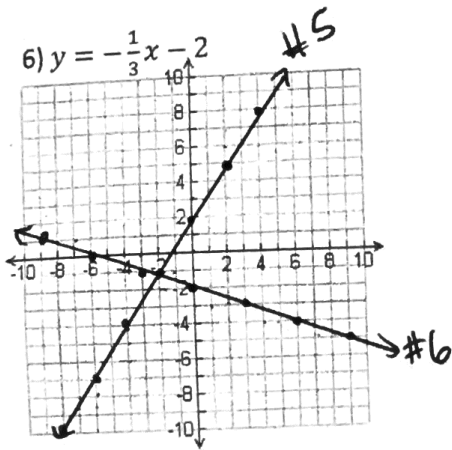
$$y = 2x + 20$$

Slope is 2

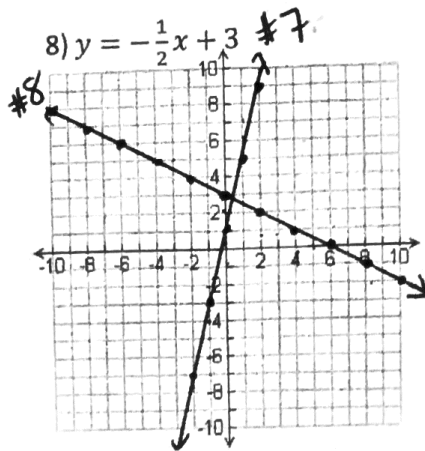
Jack is selling his cupcakes for \$1 more than Jill so he is gaining a profit at a faster rate.

Graph each equation. Use each coordinate plane for two graphs.

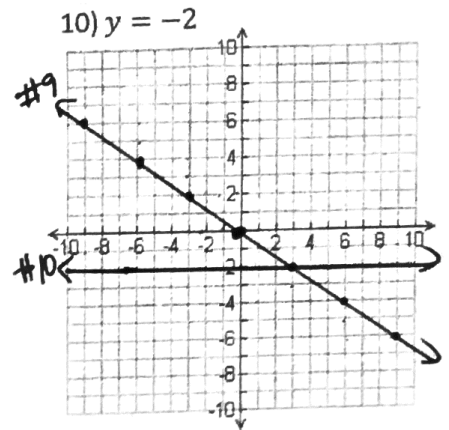
5) $y = \frac{3}{2}x + 2$



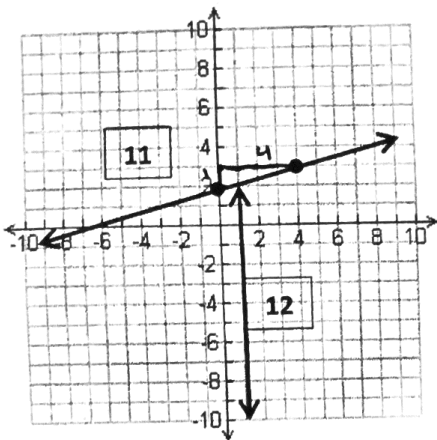
7) $y = 4x + 1$



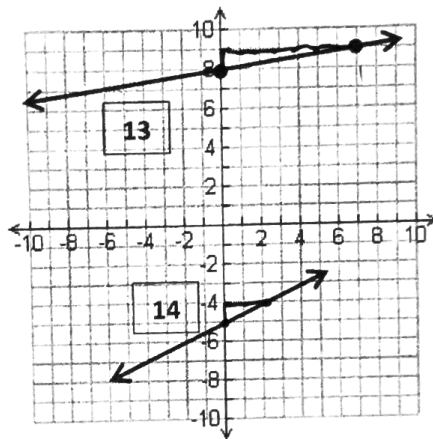
9) $y = -\frac{2}{3}x$



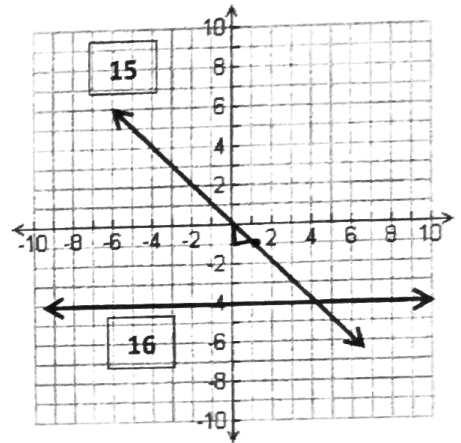
Write the equation of the line in slope-intercept form.



11) $y = \frac{1}{4}x + 2$



13) $y = \frac{1}{7}x + 8$



15) $y = -x$

12) $x = 1$

14) $y = \frac{1}{2}x - 5$

16) $y = -4$

Write the equation of the line in slope-intercept form.

17) Slope = $\frac{5}{2}$, goes through (0, -4)

$y = \frac{5}{2}x - 4$

18) Goes through (3, 1) and (5, 5)

$y = 2x + b$
 $1 = 2(3) + b$
 $1 = 6 + b$
 $-5 = b$

$\frac{5-1}{5-3} = \frac{4}{2} = 2$

$y = 2x - 5$

19) Goes through (0, -5) and (3, -4)

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

$y = \frac{1}{3}x - 5$

20) Goes through (5, -6) and (2, 6)

$y = -4x + b$
 $6 = -4(2) + b$
 $6 = -8 + b$
 $14 = b$

$\frac{6 - (-6)}{2 - 5} = \frac{12}{-3} = -4$

$y = -4x + 14$