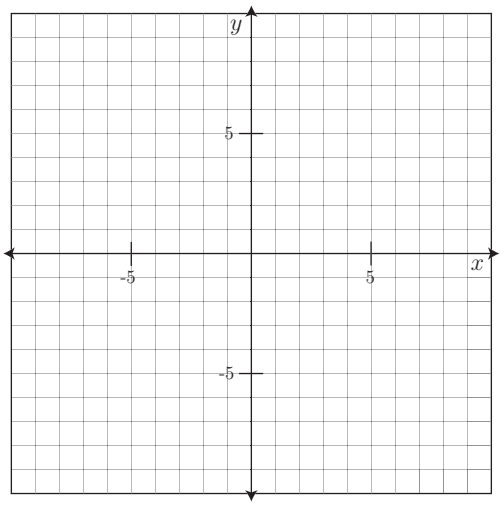
Notes 3.4

1. The table below shows different input and output values for the equation $y = \frac{2}{5}x + 4$.

	+5	+5	+5	+5
x	-10	-5	0	5	10
$y = \frac{2}{5}x + 4$	0	2	4	6	8
	+2	+2	+2	+2

(a) Use the table to plot the graph of this formula .

(b) Note that the table shows the rates at which the input and output values change. Indicate these changes (using arrows) on your graph.



2. Use the table below to answer the following questions.

(a) What is the slope of the line that connects these points?

x	-8	-4	0	4	8
y	-9	-2	5	12	19

(b) What is the equation of the line that contains these points?

3. (a) Assuming the table below describes a linear function, complete the table.

x	-7	-4	-1	2	5	8	11
y	13	9					

(b) Find the slope of this line.

4. Use the graph of the line below to answer these questions.

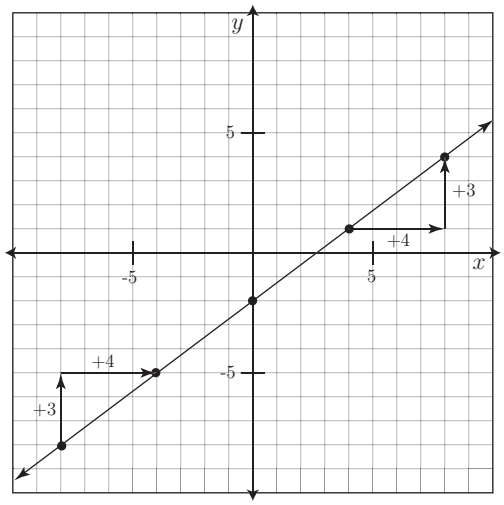
(a) What is the $y-$intercept?

(b) Complete the table using points from the graph.

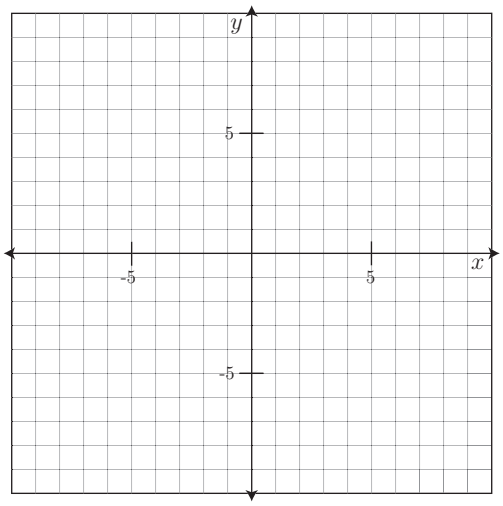
x					
y					

(c) What is the slope of this line and how did you find it?

(d) Write the equation of the line.



5. Use the graph shown on the right to do the following.

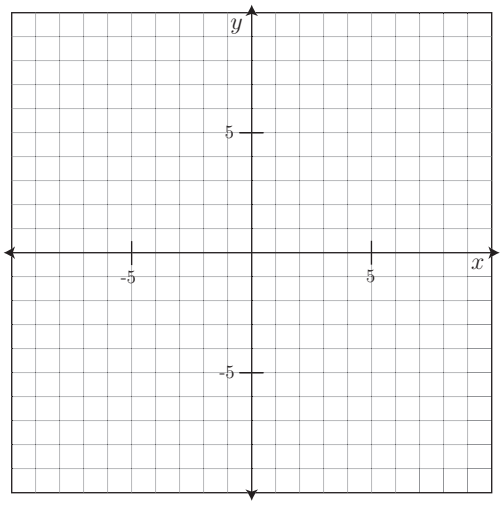


(a) Graph the line that passes through the point $(-6, -5)$ and has a table where the y values increase by 2 as the x values increase by 3.

(b) Use your graph to estimate the $y-$intercept.

(c) Write the equation of the line.

6. Use the graph shown on the right to do the following.



(a) Graph the line that passes through the points $(-7, 8)$ and $(5, -2)$.

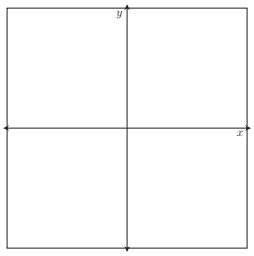
(b) Use your graph to determine the slope of the line.

(c) Use your graph to estimate the $y-$intercept.

(c) Write the equation of the line.

7. Sketch the graph of a line with 0 slope.

8. Describe the slope of the line, ℓ, graphed to the right.



9. Hurts Rent-a-car charges \$24/day for an economy car rental and an additional \$45 (per rental) for their insurance package. Write a formula giving the cost, C, of renting a car for t days.