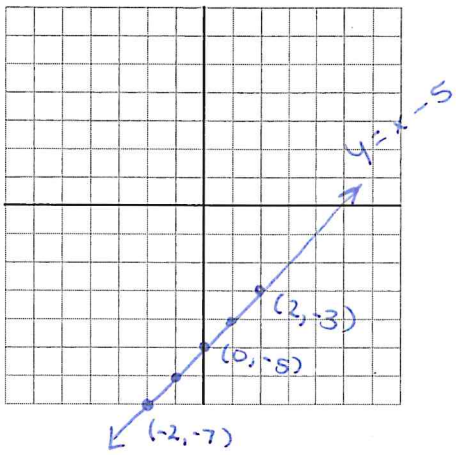
GRAPHING LINES FROM A TABLE OF VALUES

Plotting and connecting ordered pairs creates a graph.
We can use an equation, with given values of x, to determine values of y.
To do this, we substitute the value of x into the equation, then calculate the value of y.

For each of the following equations, make a table of values and sketch the graph for the line.

a) $y = x - 5$

x	$y = x - 5$	(x, y)
-2	$y = (-2) - 5$ $y = -7$	(-2, -7)
-1	$y = (-1) - 5$ $y = -6$	(-1, -6)
0	$y = (0) - 5$ $y = -5$	(0, -5)
1	$y = (1) - 5$ $y = -4$	(1, -4)
2	$y = (2) - 5$ $y = -3$	(2, -3)



What is the slope of $y = x - 5$? ONE

Calculate slope:

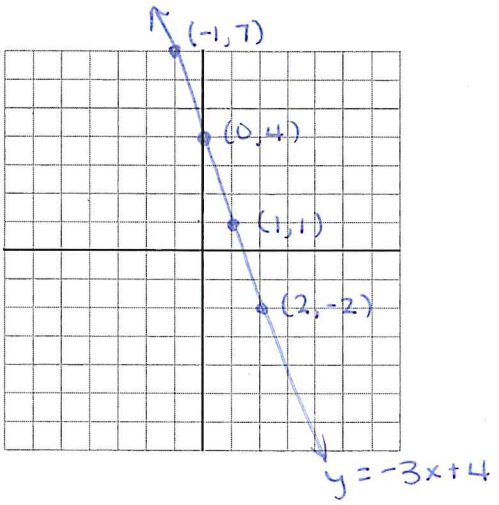
$m = \frac{\text{rise}}{\text{run}}$

$= \frac{1}{1}$

$= 1$

b) $y = -3x + 4$

x	$y = -3x + 4$	(x, y)
-1	$y = -3(-1) + 4$ $y = 3 + 4$ $y = 7$	(-1, 7)
0	$y = -3(0) + 4$ $y = 0 + 4$ $y = 4$	(0, 4)
1	$y = -3(1) + 4$ $y = -3 + 4$ $y = 1$	(1, 1)
2	$y = -3(2) + 4$ $y = -6 + 4$ $y = -2$	(2, -2)



What is the slope of $y = -3x + 4$? -3

Calculate Slope

$m = \frac{\text{rise}}{\text{run}}$

$= \frac{-3}{1}$

$= -3$