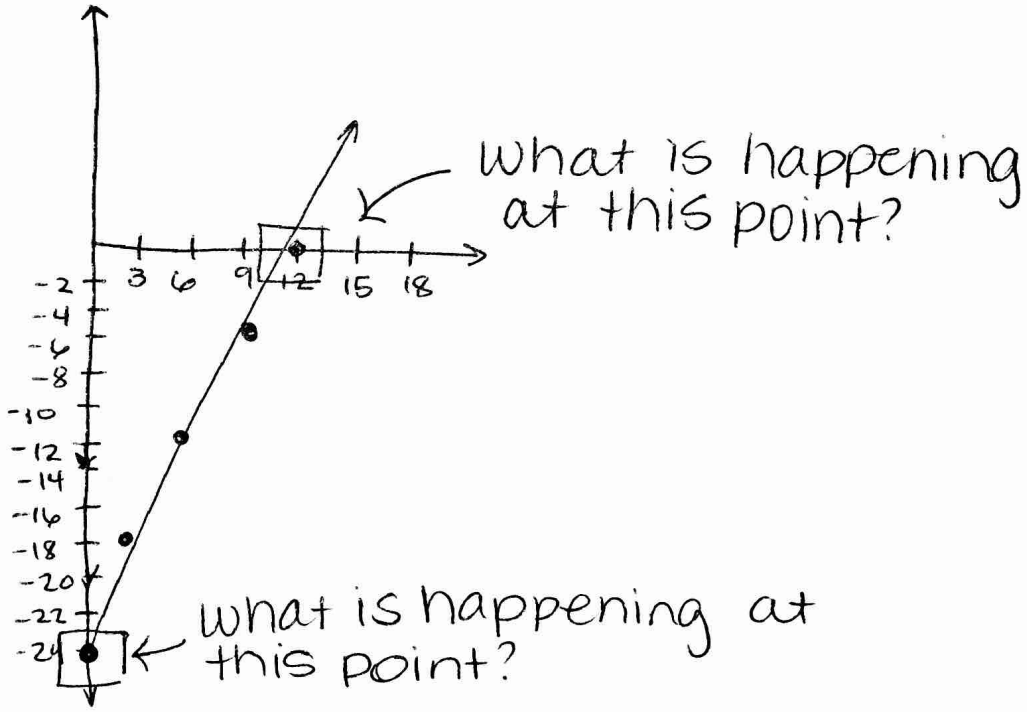
A scuba diver is ascending from a dive. The position of the diver can be described by the equation

$$2x - y = 24$$

where x represents time in seconds and y represents the depth in meters. Graph the equation.

x	y
0	-24
3	-18
6	-12
9	-6
12	0



x-intercept - the point where the graph crosses the x-axis
(0, y)

y-intercept - the point where the graph crosses the y-axis
(x, 0)
↑ x also called a zero

Where are these on the graph? The table?

We can graph with intercepts!

Ex: $3x - y = 4$

x-int

$(0, y)$

$3(0) - y = 4$

$0 - y = 4$

$y = -4$

$(0, -4)$

y-int

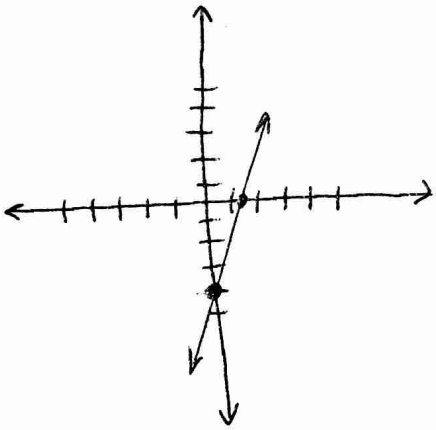
$(x, 0)$

$3x - 0 = 4$

$3x = 4$

$x = 4/3$

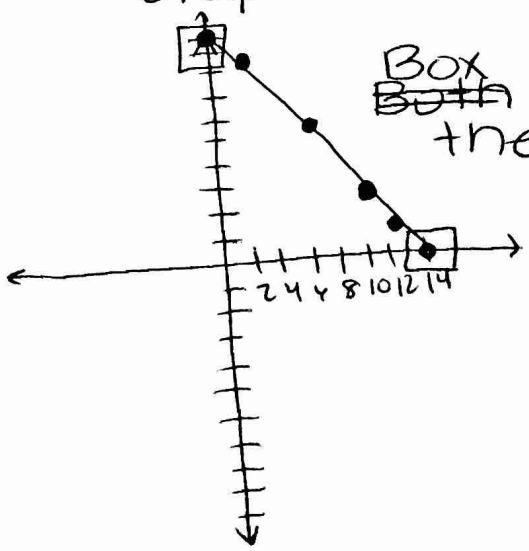
$(4/3, 0)$



Ex: Draining a Pool

Time, x	Volume, y
0	10,080
2	8640
6	5760
10	2880
12	1440
14	0

Where are the intercepts?
What do they mean?
Graph.



Box ~~Both~~ and label the intercepts.

: Graph $y = -x - 5$ using intercepts