

Linear Relations Day 3

We have now figured out what Linear Relations (graphing) are.

Usually we do enough repetition that the concepts sink in. Less thinking needed / More work comp.

This year with Covid what I am hoping is, since I have to assign Less work / Please do More thinking.

In math in grade 8 and beyond we do not do a lot of repetition. Like practicing your times tables.

We explain multiplying and show 2 examples then expect you to know all your times tables. Done!!!

Here is my summary of graphing (you need to copy, understand, be able to reproduce and use)

For graphing linear relations you need to make a t – chart with minimum 4 points.

Always include a title if its appropriate ($y = 2x$ no title needed), label and evenly space each axis.

For the independent variable you pick numbers (easiest #s generally - 1. 0. 1. 2)

For certain questions like $y = \frac{1}{2}x + 1$ you would want to pick even numbers (eliminate fractions)

The dependent variable is then calculated using each x value and the formula.

A linear relation is best seen as a set of steps

The general equation IS $y = mx$ (ex $y = -2x$) m is know as the slope (or steepness of the stairs)

For $y = 2x$ this is really $y = \frac{2}{1}x$

we make a t - chart (also known as a t - table)

Some things I need you to notice

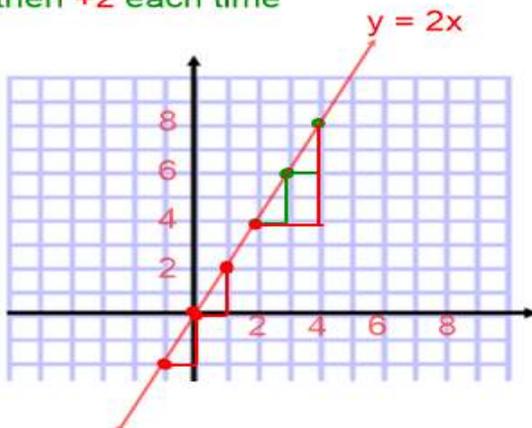
if +1 each time

x	-1	0	1	2	4
y	-2	0	2	4	8

The Pattern

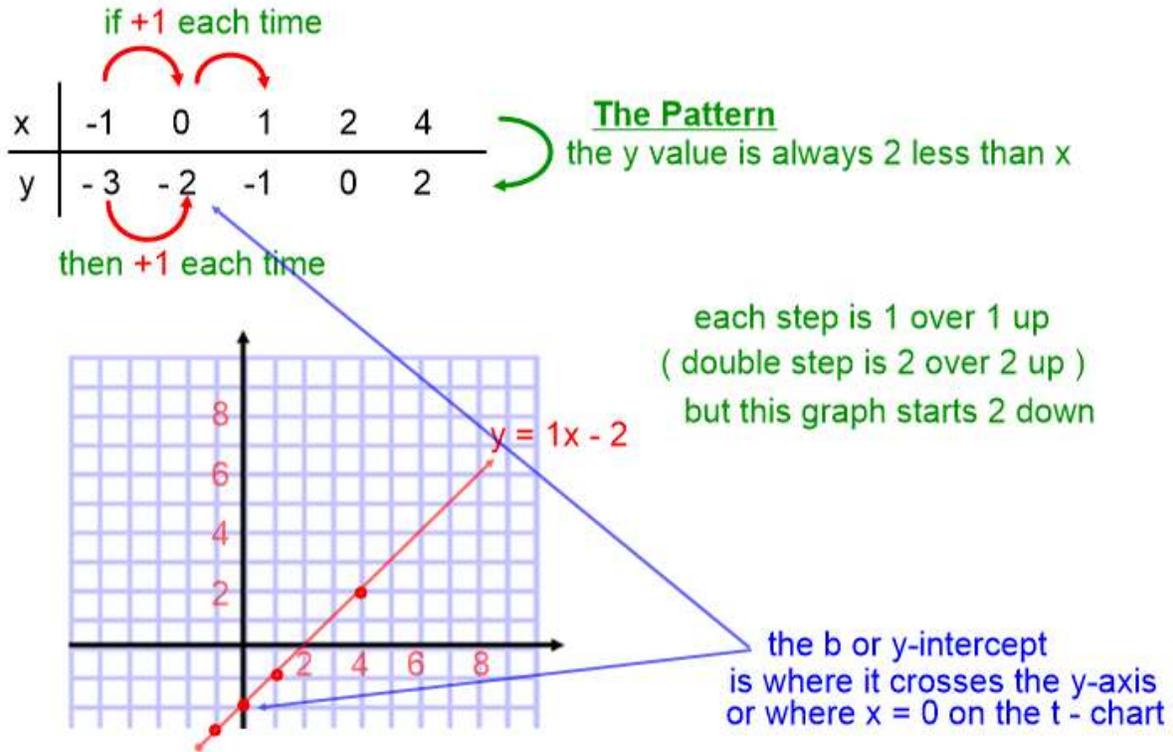
The y is always 2 times x
Which is what our formula says

then +2 each time



For $y = x - 2$ the general equation is $y = x + b$ (b is the y intercept, where line crosses y -axis)

For $y = x - 2$ this is really $y = 1x - 2$



I need you to first try and think about the slope and the y -intercept and what each graph would look like

Then please make a graph just like the above for the two examples

- 1) $y = 2x - 3$
- 2) $y = -2x + 3$

When that is done please do / know how to do "Get Ready" on page 176 1-3 for this part

It can be 1 fcs or every second letter but please make sure you know it.

(you should have already done / know how to do 4 - 8)

From now on in math you need to think more, because we are doing less repetition.

If you said you're A B C s twice you would not have them memorized, you needed repetition,

But now you need complete understanding and a little practice.

Good Luck