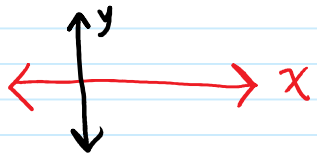
9.1 Notes

December 13, 2019 9:55 AM

Linear Relations - the relationship between 2 items. Shown in a table or a graph.

(TOV) Table of Values - shows the data. Patterns will tell you what the graph looks like

Will be vertical



x	y
1	10
2	20
3	30

+10

or Horizontal

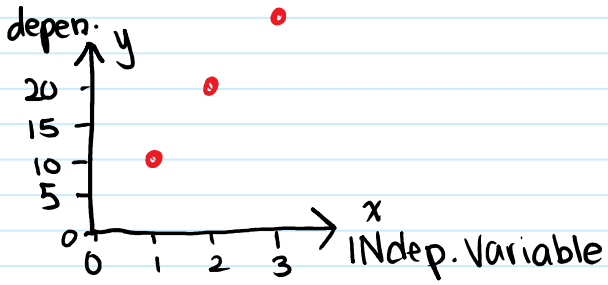
x	1	2	3
y	10	20	30

x is the INDEPENDENT variable. It goes first in vertical TOV and TOP on horizontal TOV. It is used to make other data set. In a graph, it must be the bottom/horizontal

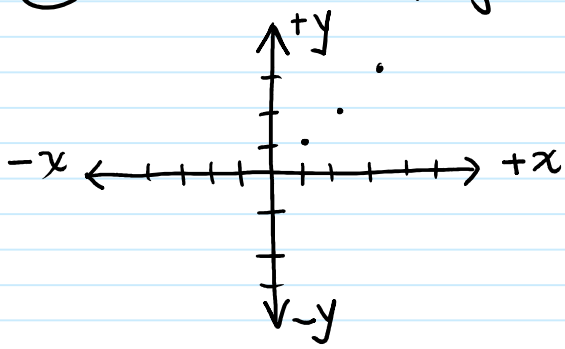
y is the DEPENDENT variable. ⊛ The pattern in the table gives the equation using the indep. value with it. $y = 10x$
In a graph it is always vertical/side

Graphs will be shown 2 ways depending on data.

① All Positive Numbers

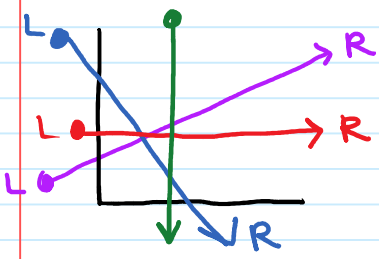


② Positive and Negative.



* each tick must show same amount. Values on graph must be close or same as data values.

Lines are "Read" just like words. Look from Left most point towards right most point.



■ Positive Slope. Line goes up, looking L→R
ex: $y = 2x$

■ Negative Slope. Line goes down, looking L→R
ex: $y = -4x$

■ Zero Slope. Horizontal Line because y never goes up or down. ex: $y = 2$

■ Undefined Slope. Vertical Line because x never goes up

or down. ex: $x = 2$

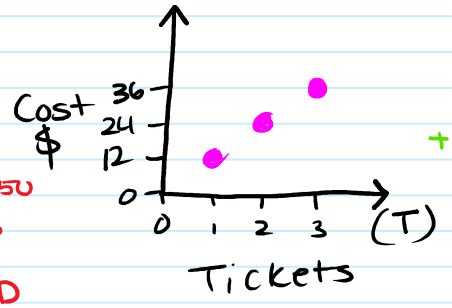
- When given a graph with points on it, you might be asked if it is Reasonable to have points in between the ones on your graph.

D	L
100	50
200	100
300	150

+100 +50

$L = \frac{50}{100} D$

$L = \frac{1}{2} D$



(INDEP) (dep)

T	C
1	12
2	24
3	36

+1 pattern +12

$C = \frac{12}{1} T$

$C = 12T$

Yes, Reasonable to have points in between because you can drive part of a km and use part of a Litre.

Not reasonable because can't buy part of a ticket!

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