Review: Direct and Partial Variation

A relationship is linear if...

- graph is a straight line
- rate of change is constant
- first differences are constant
- equation is $y = mx + b$

m: rate of change; b: initial amount

In direct variation, the initial value is zero.

In partial variation, the initial value is not zero.

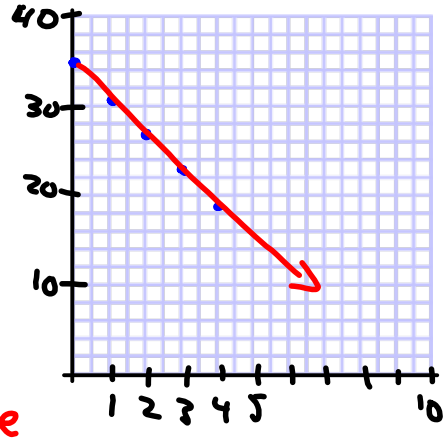
Jan 28-2:13 PM

Example 1: Determine if the following relationship is linear.

x	y	② differences (1st)
0	35	
1	31	-4
2	27	-4
3	23	-4
4	19	-4

linear because the differences are the same

① graph

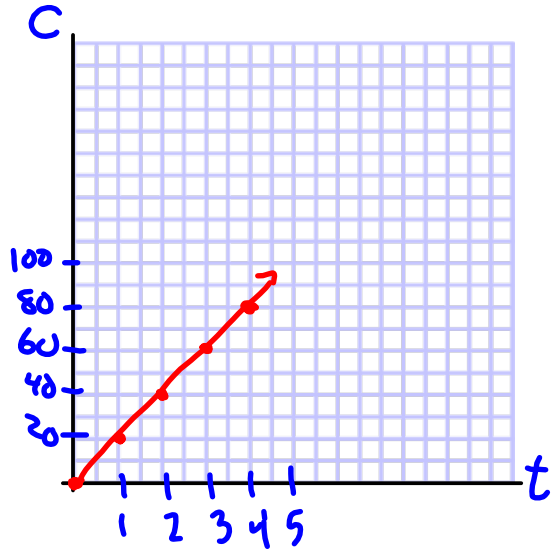


$y = mx + b$

$y = -4x + 35$

Example 2: Benny can eat 20 chips in a minute. Represent this relationship with a table of values, a graph, and an equation.

t	C
0	0
1	20
2	40
3	60
4	80



$C = mt + b$

$C = 20t + 0$

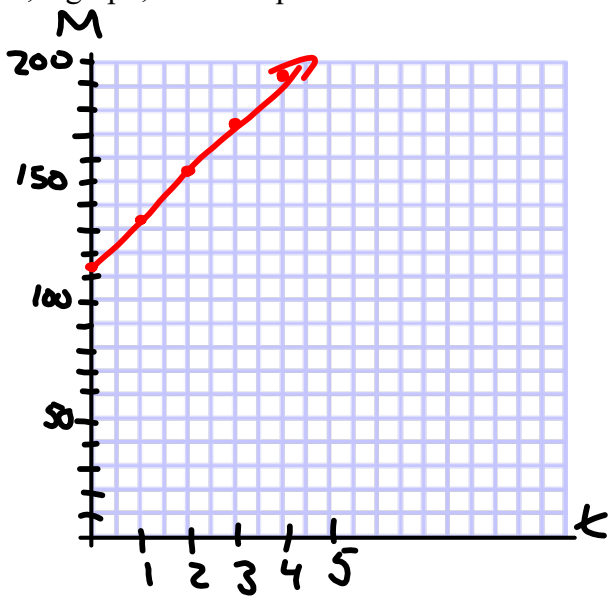
$\boxed{C = 20t}$

- linear
- direct variation

Jan 28-2:11 PM

Example 3: Abbey is saving up for some fancy sound equipment. She currently has $115 saved, and plans to save $20 a week. Represent this relationship with a table of values, a graph, and an equation.

t	M
0	115
1	135
2	155
3	175
4	195



$M = mt + b$

$\boxed{M = 20t + 115}$

Jan 28-2:12 PM

Attachments

03-D.pdf

03 (Variation).doc

03.pdf

03-D (Assignment).doc