

U9-7 Rate of Change

<p>Rate of Change allows you to see the _____ between two quantities that are _____</p>	<p>If one quantity _____ on the other, you can find the rate of change.</p>	Rate of Change
		=
		=

Finding rate of change in a table:

Rate of change in a table can be found by dividing change in the **dependent (y-value/output/range)** over change in the **independent (x-value/ input/domain)**.

Ex: 1

Cost of Renting a Computer	
Number of Days	Rental Charge
1	\$60
2	\$75
3	\$90
4	\$105
5	\$120

- a) Is the change from one x-value to the next the same for each consecutive day?
- b) What is the change from one x-value to the next?
- c) Is the change from one y-value to the next the same for each consecutive day?
- d) What is the change from on y-value to the next?

e)

$$\text{Rate of change} = \frac{\text{Change in}}{\text{Change in}}$$

$$= \frac{\text{Change in}}{\text{Change in}}$$

Ex 2:

Middle Schoolers love to text. Kara is texting at the rate given in the table below.

Minutes	Number of Texts Sent
0	0
1	5
2	10
3	15
4	20

- a) Is the change from one x-value to the next the same for each consecutive day?
- b) What is the change from one x-value to the next?
- c) Is the change from one y-value to the next the same for each consecutive day?
- d) What is the change from on y-value to the next?

e)

$$\text{Rate of change} = \frac{\text{Change in}}{\text{Change in}}$$

$$= \frac{\text{Change in}}{\text{Change in}}$$

Finding rate of change using a graph:

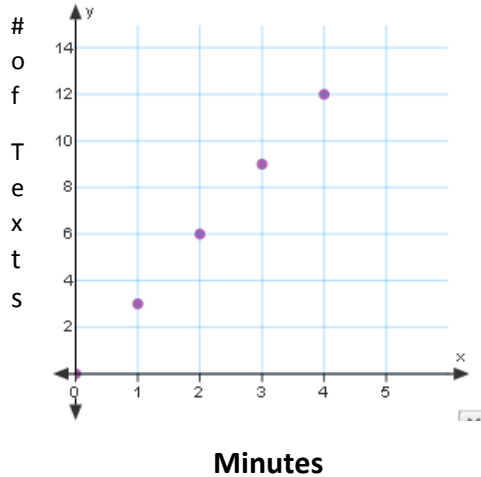
You can find the rate of change from a graph by using the following formula:

$$\text{Rate of change} = \frac{\text{vertical change (y-axis)}}{\text{horizontal change (x-axis)}}$$



Ex 3:

Brandon also likes to text and his rate is given in the graph below.



Ex 4:

Millie is saving money for a new i-phone. She started with \$20 and saving a certain amount each week.



a) What is the change from one x-value to the next?

b) What is the change from one y-value to the next?

c) Rate of change = $\frac{\text{Change in } y}{\text{Change in } x}$
=

d) How many times does Brandon text per minute?

e) Who texts at a faster rate, Brandon or Kara?

a) What is the change from one x-value to the next?

b) What is the change from one y-value to the next?

c) Rate of change = $\frac{\text{Change in } y}{\text{Change in } x}$
=

d) How much money does Mille save per week?

e) How long will it take her to save \$500?

