

NAME:

Notes 7-2

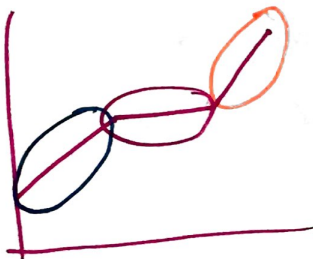
Int 1

Constant Rate of Change

Unit 7

VOCABULARY

Rate of Change:

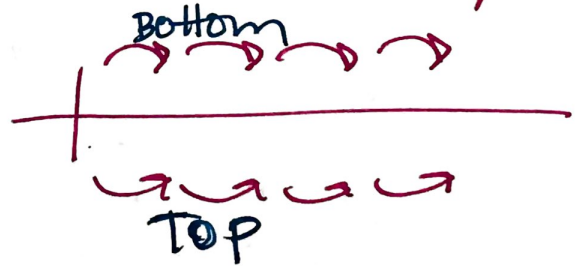
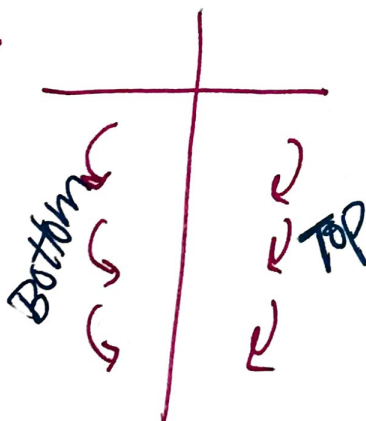
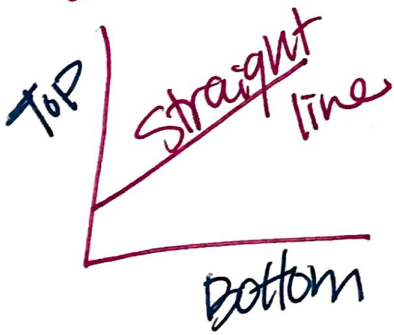


Not always constant

$$CROC = \frac{\$30}{5 \text{ hrs}} = \frac{\$6}{1 \text{ hr}} \text{ Simplify!}$$

Constant Rate of Change:

Repeats the same #'s always.



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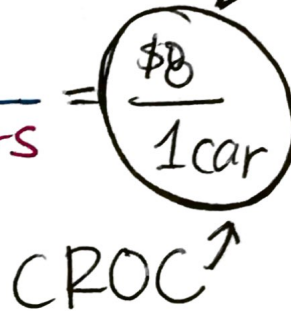
Ex. 1: The table shows the amount of money a booster club makes washing cars for a fundraiser. Is there a constant rate of change? If so, find it.

Cars Washed	
Number	Money (\$)
5	40
10	80
15	120
20	160

Handwritten notes: "Bottom +5" with arrows pointing to the number column, and "TOP +\$40" with arrows pointing to the money column. The number of cars increases by 5, and the money increases by \$40 for each increment.

Yes!

$$\frac{\$40}{5 \text{ cars}}$$



Ex. 2: This table shows how many seconds it takes Jane to run laps around the track. Is there a constant rate of change? If so, find it.

NO.

Laps Around the Track	0	1	2	3	4	5
Time (sec.)	0	91	182	285	383	474

Handwritten notes: "Bottom +1 lap" with arrows pointing to the lap numbers. "TOP +91 Sec" with arrows pointing to the time differences between 0-1, 1-2, and 4-5 laps. The time differences are 91, 91, 103, 98, and 91 seconds respectively. The 103 and 98 second differences are circled in pink.

Handwritten notes: "TOP +91 Sec" with arrows pointing to the time differences between 0-1, 1-2, and 4-5 laps. The 103 and 98 second differences are circled in pink.

NAME: \_\_\_\_\_

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### Int 1

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Ex. 3: The table and graph below show the hourly charge to rent a bicycle at two different stores. Which store would be better to rent a bicycle at? Explain.

### TABLE

Pedal Rentals	
Time (hrs.)	Cost (\$)
4	36
5	45
6	54

$$\frac{\$36}{4 \text{ hrs.}}$$

$$\frac{\$45}{5 \text{ hrs}}$$

$$\frac{\$54}{6 \text{ hrs}}$$

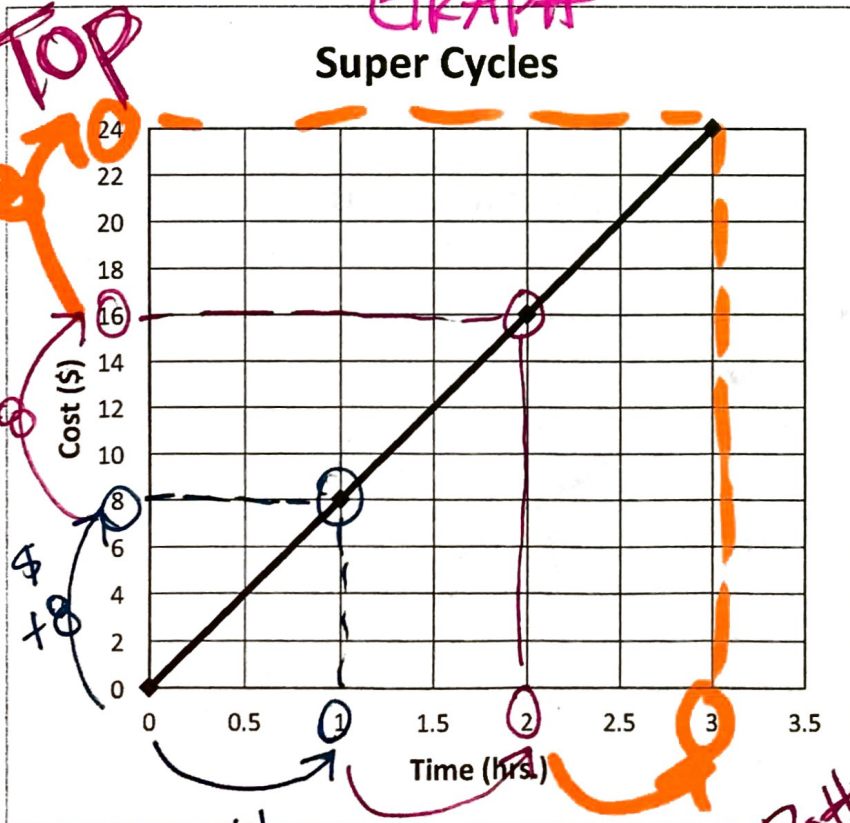
$$\frac{\$9}{1 \text{ hr}}$$

Bottom

TOP

### GRAPH

Super Cycles



$$\frac{\$8}{1 \text{ hr}}$$

$$\frac{\$8}{1 \text{ hr}}$$

$$\frac{\$8}{1 \text{ hr}}$$

Pick me!

+1 hr  
+1 hr  
+1 hr Bottom



NAME: \_\_\_\_\_

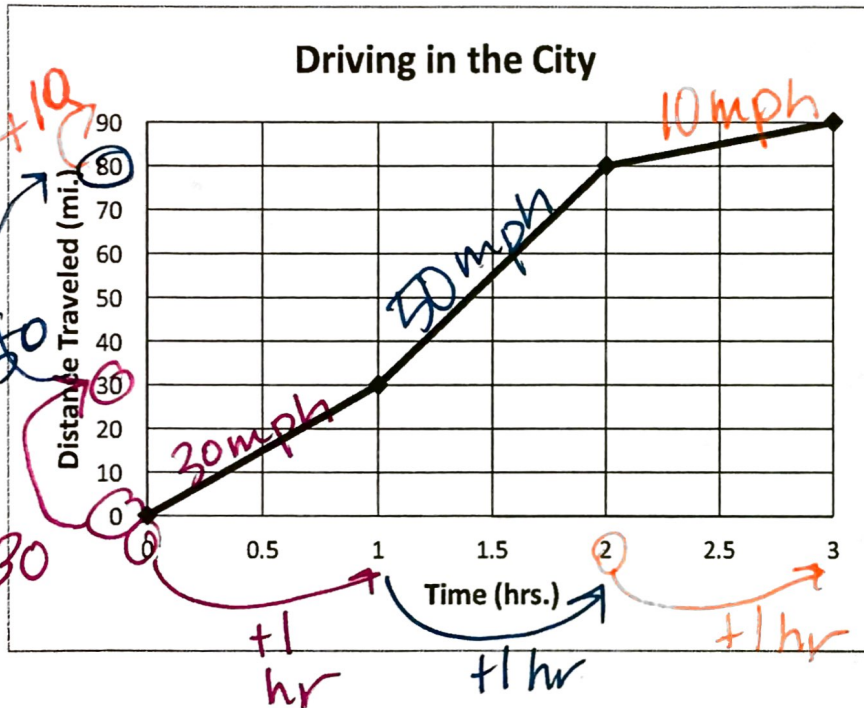
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Int 1

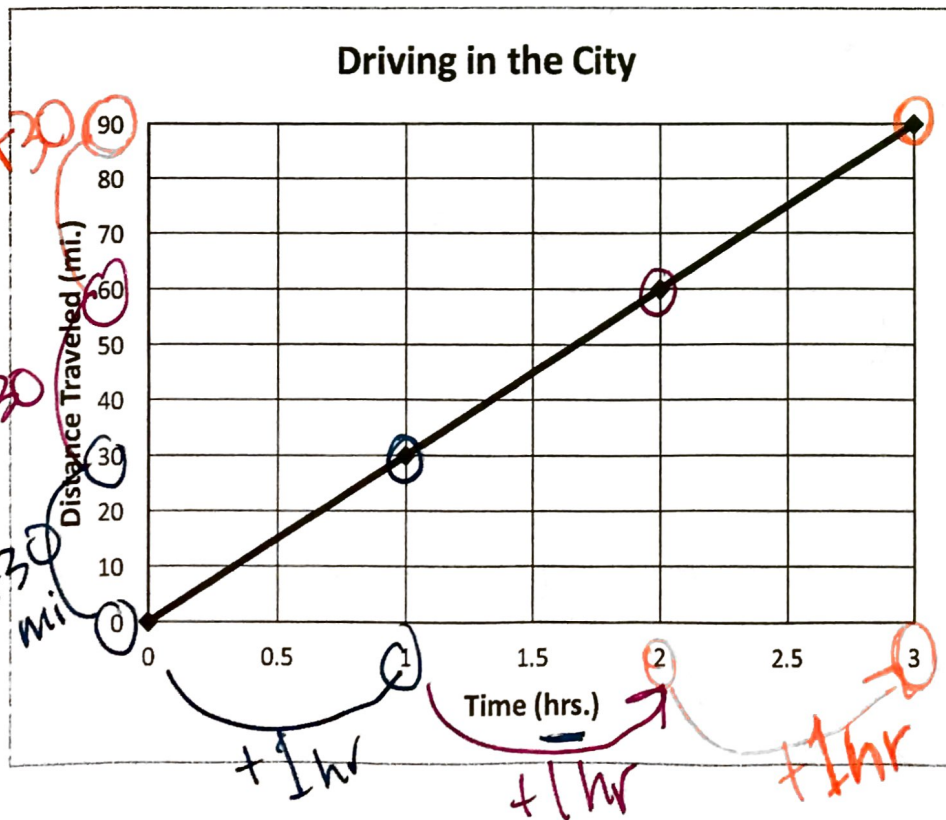
Constant Rate of Change

Unit 7

Ex. 4: These graphs represent the distance traveled while driving in the city. Do they represent a constant rate of change? Why or why not? If so, what is it?



NO, CROC.



Yes

CROC

The CROC

is: 30mph

NAME:

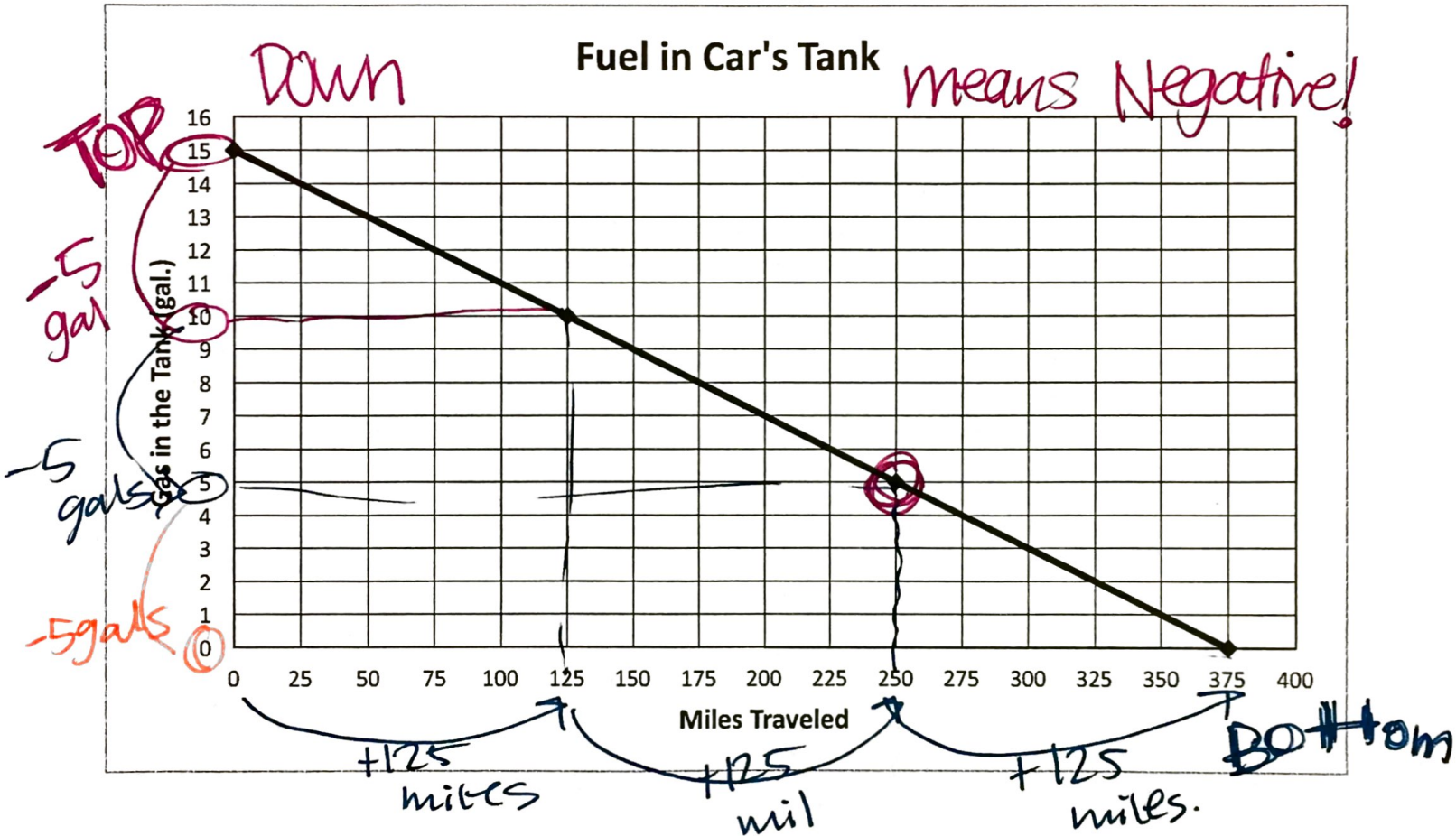
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Int 1

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Unit 7

Ex. 5: This graph represents how much gas is left in my car's fuel tank when I have traveled a certain number of miles.



Is there a constant rate of change? If so, find it.

Yes!!

$$\frac{-5 \text{ gallons}}{125 \text{ miles}}$$

$$= \frac{-0.04 \text{ gal}}{1 \text{ mile}}$$

What does the point (250, 5) mean in context of the story?

After 250 miles traveled they have 5 gal. left.