

2. Ms. Rodriguez starts out for school at 5:00 AM and drives 15 miles in 10 min. She then stops for 30 minutes at Starbucks for a coffee. She continues driving, but there is traffic. She travels 20 minutes and covers 10 miles and arrives at school.

Draw a graph with the distance on the vertical axis and time on the horizontal axis.

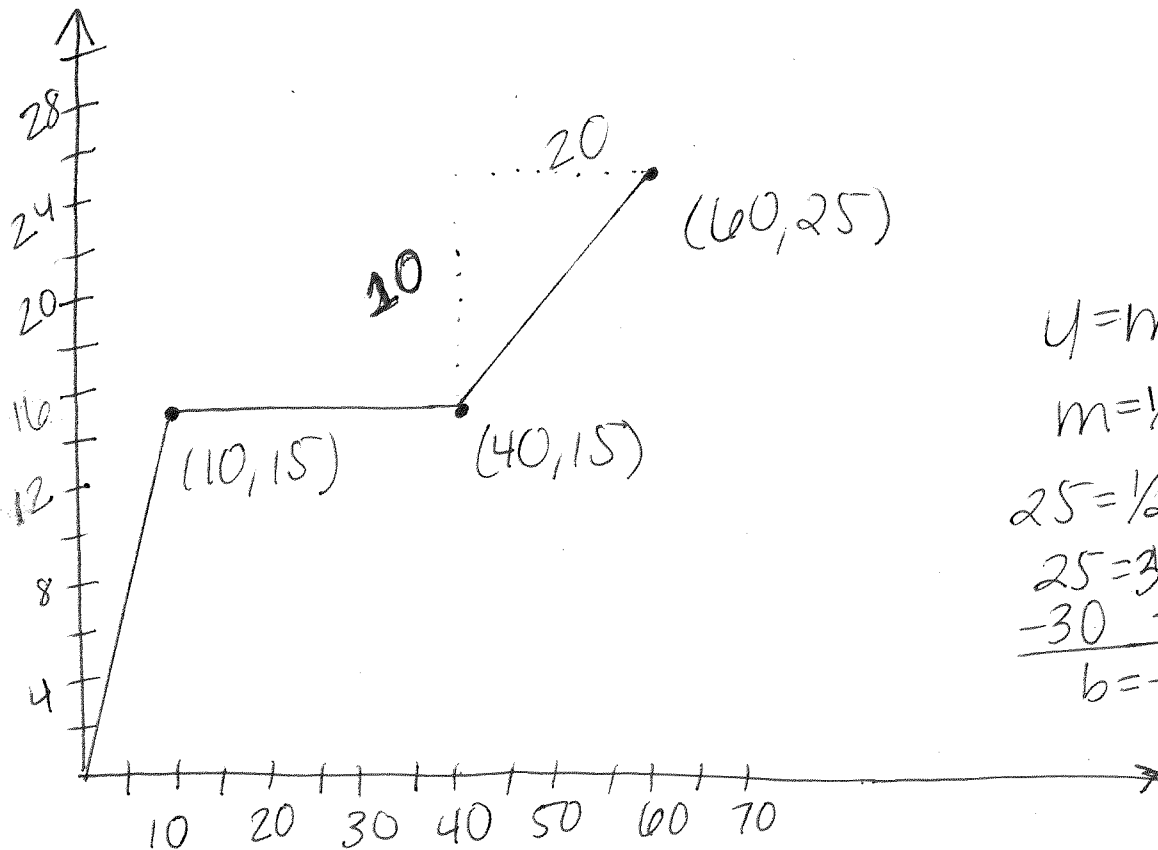
****On a separate sheet of paper**

Then fill out the table below:

Part of Trip	Equation	Domain
Driving Part 1	$m=3/2$ $b=0$ $y=3/2x+0$	$(0, 10)$
Starbucks Stop	$m=0$ $b=15$ $y=15$	$[10, 40)$
Driving with Traffic	$m=1/2$ $b=-5$ $y=1/2x-5$	$[40, 60)$

What time does she arrive at school? $6:00 \text{ A.M.}$

What is the range of the problem and what does it mean in context of the situation? 60 minutes .
The length of her trip.



$$y = mx + b$$

$$m = 1/2 \text{ pt. } (60, 25)$$

$$25 = 1/2(60) + b$$

$$25 = 30 + b$$

$$\begin{array}{r} -30 \\ \hline b = -5 \end{array}$$

minutes

KEY!

12/20/17

1.

	x	y
#1	-12	-14
	-4	-8
#2	8	1
#3	20	10
	32	19

$$m = \frac{27}{36} = \frac{3}{4}$$

$$y = mx + b$$

$$y = \frac{3}{4}x + b$$

$(-4, -8)$

What is the equation modeled by this chart?

$$y = -5 + \frac{3}{4}x$$

Fill in the missing values.

#1

$$y = -5 + \frac{3}{4}(-12)$$

$$y = -5 + -9$$

$$y = -14$$

#2

$$y = \frac{3}{4}x + b$$

$$= \frac{3}{4}x - 5$$

$$+5 \quad +5$$

$$b = \frac{3}{4}x$$

$$\cdot \frac{4}{3} \cdot \frac{4}{3} \quad x = 8$$

$$-8 = \frac{3}{4}(-4) + b$$

$$-8 = -3 + b$$

$$+3 \quad +3$$

$$-5 = b$$

#3 $x = 20$

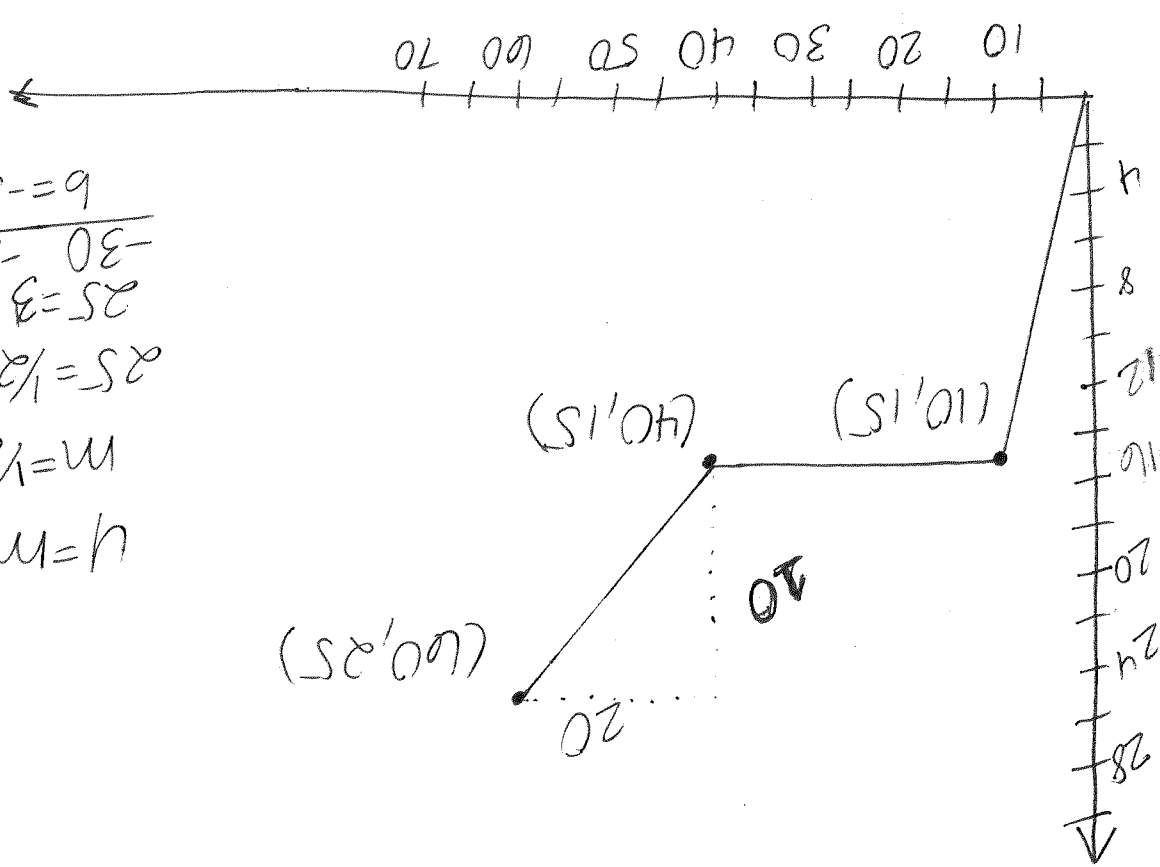
$$y = \frac{3}{4}x + b$$

$$y = \frac{3}{4}(20) - 5$$

$$y = 15 - 5$$

$$y = 10$$

minutes



$$y = mx + b$$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{10 - 0}{20 - 0} = \frac{1}{2}$$

$$25 = \frac{1}{2}(40) + b$$

$$9 + 20 = 25$$

$$-30 \quad -30$$

$$\frac{25 - 30}{1 - 1} = \frac{-5}{0}$$

$$b = -5$$