

Day 26: Review!

1.

Amelia has \$15 in her wallet. Each lunch she goes to the taco truck and purchases \$3 worth of food. Write an equation to represent the situation if  $x$  represents the amount of meals she purchases and  $y$  represents the amount of money left in her wallet. →

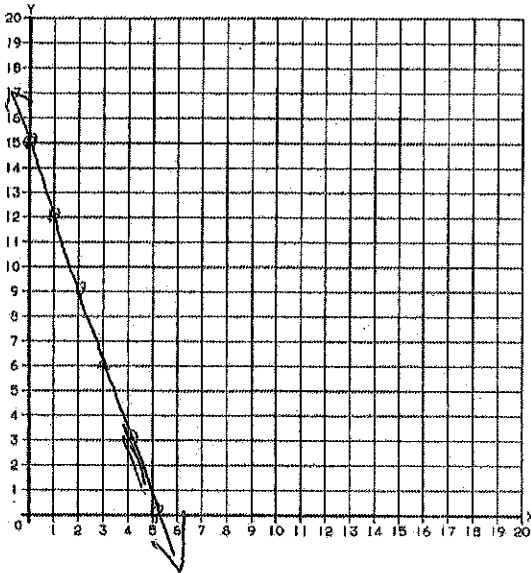
Equation:

$$y = -3x + 15$$

OR

$$y = 15 - 3x$$

Graph the equation:



Solve algebraically:

a. How much will she have spent after 4 lunches?

$$y = -3(4) + 15$$

$$-12 + 15$$

$$y = 3$$

3 dollars left

b. When will she have \$6 left?

$$6 = -3x + 15$$

$$-15$$

$$\frac{-9}{-3} = \frac{-3x}{-3}$$

$$x = 3$$

3 ~~meals~~ purchased

2.

Complete the table:

x	0	3	6	9
y	4	6	8	10

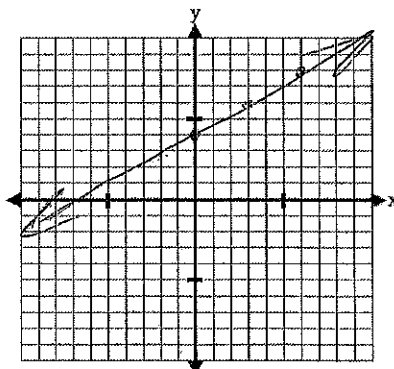
Find the slope:

$$\frac{2}{3}$$

Write an equation to represent the table:

$$y = \frac{2}{3}x + 4$$

Graph the equation:



Solve algebraically:

a. What will  $x$  be when  $y$  is equal to 60?


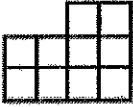
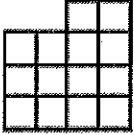
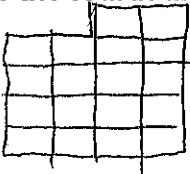
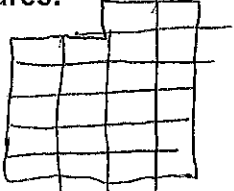
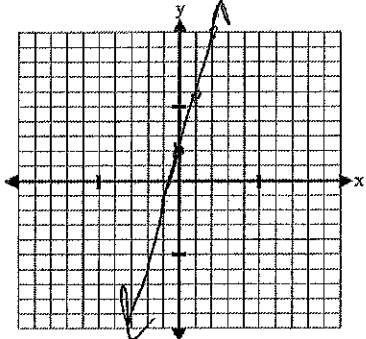
$$60 = \frac{2}{3}x + 4$$

$$-4$$

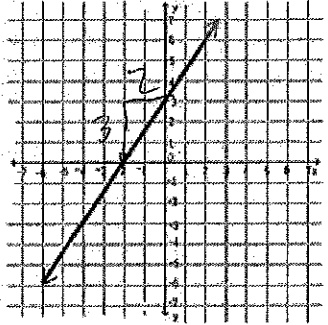
$$3 \cdot (56 = \frac{2}{3}x) \cdot 3$$

$$\frac{168}{2} = \frac{2x}{2} \rightarrow x = 84$$

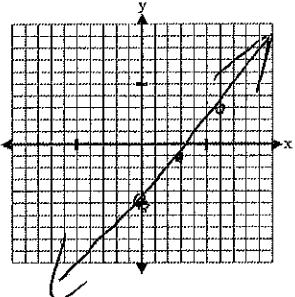
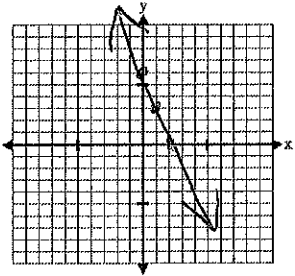
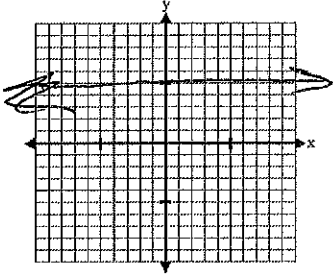
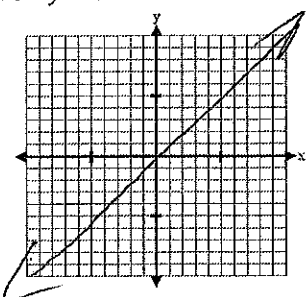
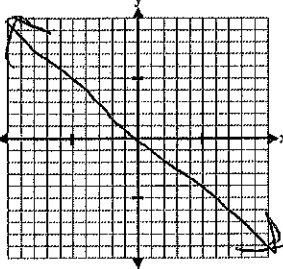
3.

 Figure 1	 Figure 2	 Figure 3
<b>Draw the fourth and fifth figures:</b>  		
<b>Define the variables:</b> x: Figure #      y: # of tiles		<b>Graph the equation:</b> 
<b>Write the equation:</b> $y = 4x + 2$		

**4. Calculate the slope:**

a. Between (4,-5) and (4,-11)  $\frac{-11 - (-5)}{4 - 4} = \frac{-11 + 5}{0} = \frac{-6}{0}$  Slope: <u>Undefined</u>	b. Between (8,10) and (13, 10)  $\frac{10 - 10}{13 - 8} = \frac{0}{5}$  Slope: <u>0</u>	c.   Slope: <u>3/2</u>
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**5. Graph the equations:**

a. $y = \frac{4}{3}x - 5$ 	b. $y = -3x + 6$ 	c. $y = 5$ 
d. $y = x$ 	e. $y = -x$ 	f. $x = -8$ 