Using Tables to Make Predictions

1. Cost to Prepare Pizzas

Pizza Prepared		1	2	3	4			
Cost		$12.00	$15.00	$18.00	$21.00			

Alfy has a pizza stand.   Based on the table, what would be the cost of preparing more pizzas?

a)   What would be the cost of preparing 5 pizzas?

b)   What would be the cost of preparing 7 pizzas?

c)   What did it cost to set-up the pizza stand? (cost of preparing **0** pizzas)

d)   Determine the rate of change of the **Cost** vs. **Number of Pizzas prepared**

$$\frac{\text{change in } \textbf{Cost}}{\text{change in } \textbf{Number of Pizzas}} = \underline{\hspace{4cm}}$$

e)   Write an equation to find the cost of preparing more pizzas.

f)   Using the equation found in part **e)** what would be the cost of preparing 20 pizzas?

g)   What would be the cost of preparing 50 pizzas?

**h)**   Draw a graph to represent the Cost of Preparing Pizzas (label the *x* and *y* axes)
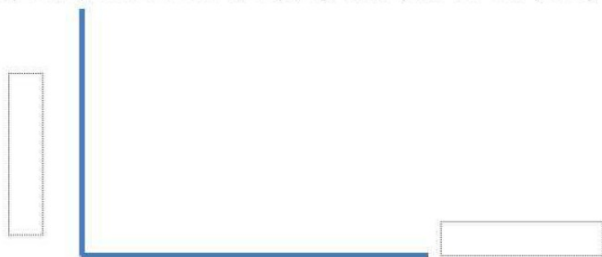
i)   What does the *y*-intercept tell you?

2. Cost of Cell Phone based on Minutes

Minutes Used			15	20	25	30	
Cost			$30	$34	$38	$42	

a)   How much would 45 minutes cost?

b)   How much is the cost of having a cell phone *without* using any minutes ?

c)   Determine the rate of change of the **Cost**   vs.   **Minutes Used**

$$\frac{\text{change in } \textbf{Cost of Cell Phone}}{\text{change in } \textbf{Minutes Used}} = \underline{\hspace{4cm}}$$

d)   Write an equation to find the cost of the cell phone for any number of given minutes.

e)   Using the equation found in part **d)** how much would 115 minutes cost ?

f)   How much would 145 minutes cost?

g)   Draw a graph to represent the Cost of a Cell Phone (label the *x* and *y* axes)
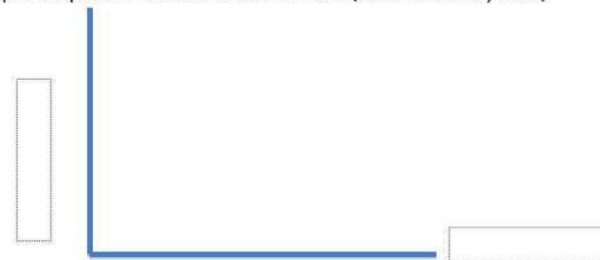
h)   What does the *y*-intercept tell you?

3. **Amount of Water Available in a Tank**

Day			2	3	4	5	
Water (gallons)			150	125	100	75	

If the amount of water in a tank continues to decrease at the rate shown in the chart.

a) On which day will the tank have 25 gallons left?

b) How much water did the tank start with before the tank began to drain ?

c) Determine the rate of change of the **Gallons of Water** vs. **Days**

$$\frac{\text{change in } \textbf{Gallons of Water}}{\text{change in } \textbf{Days}} = \underline{\hspace{4cm}}$$

d) Write an equation to represent the gallons of water in the tank at any time.

e) Using the equation found in part **d)** how many gallons will the tank contain on day 7 ?

f) Draw a graph to represent the Water Available in the Tank (label the x and y axes)

g) What does the x-intercept tell you?

4. **Gas Remaining in Tank (based on miles)**

Miles Driven		25	50	75	
Gas Remaining (in gallons)		18	16	14	

a) How much gas is left after driving 125 miles?

b) How much gas was in the tank before driving?

c) Write an equation to represent the number of gallons of water in the tank.

d) How much gas is left after driving 250 miles?

e) Draw a graph to represent the Gas Remaining in the Tank   (label the x and y axes)

f) What does the x-intercept tell you?