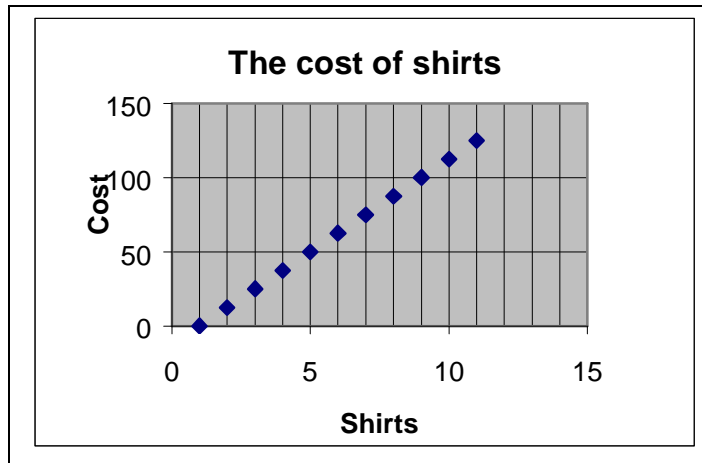


Test review on Variables and Patterns

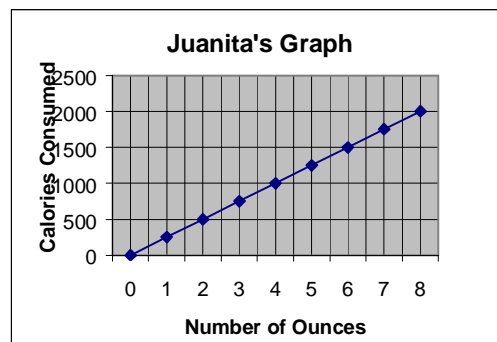
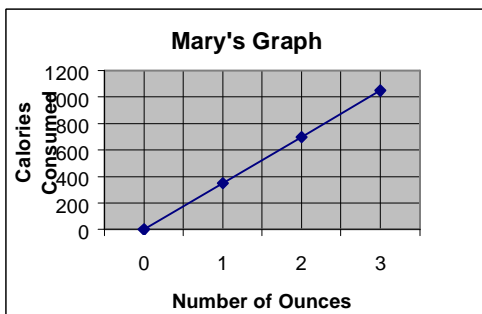
1. Sidney, Liz, and Malcolm thought it would be a good idea to get a souvenir T-shirt for each customer who went on the Ocean and History Bike Tour. Latisha found a company who would sell them shirts with their logo for \$12.50.
- a. Make a table and a graph that show number of shirts and cost for up to 10 shirts.

Shirts	Cost
0	0
1	12.50
2	25
3	37.50
4	50
5	62.50
6	75
7	87.50
8	100
9	112.50
10	125



- b. Would it make sense to connect the points on your graph with a line? Explain.
No, because you can't buy half a shirt.
- c. Write a rule using symbols and numbers to determine the T-shirt cost for any number of customers using C for cost and n for number of customers.
 $C=12.50n$

2. Mary and Juanita made the following graphs.



- a. Did Mary and Juanita graph the same data set?
No, because on Mary's graph 1=400, and on Juanita's graph 1=300.

b. Write a rule relating the number of ounces to the calories consumed from Mary's graph

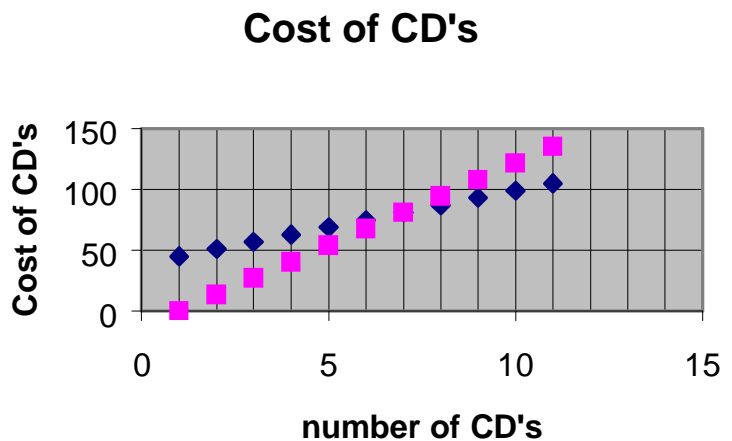
$C=350n$

3. Dee bought a CD player with the money he earned working during his vacation. He checked CD costs at 2 stores.

- Bob's Department Store has a \$45 membership fee, then each CD costs \$6
- Bill's Warehouse sells CD's for \$13.50 each.

a. Make a table and a graph that shows the cost of purchasing 0-10 CDs at each store.

CDs	Bob's	Bill's
0	45	0
1	51	13.50
2	57	27
3	63	40.50
4	69	54
5	75	67.50
6	81	81
7	87	94.50
8	93	108
9	99	121.50
10	105	135



Give answers to b and c as a range (ex. 5 CD's or less).

b. How many CDs would Dee have to purchase to have Bill's Warehouse be the best place to buy CDs?

5 CDs or less

c. How many CDs would Dee have to purchase to have Bob's Department Store be the best place to buy CDs?

7 CDs or more

d. Explain what representation-the *narrative description*, the *table*, of the *graph*-helps you the most in making the decision of where to buy CDs.

I chose the table because it gives exact answers and I can see when they are the same or when each one is cheaper.

I chose the graph because I can see when the lines cross, and which line is lower or cheaper for different numbers of CDs

4. Hiroshi gave $y=15x+5$ as the answer to a question on his test paper. Make up a situation that his rule could represent.

One possible answer: Hiroshi put 5 dollars from his birthday into savings and continued to save \$15 per month after that.