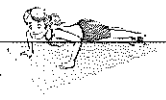
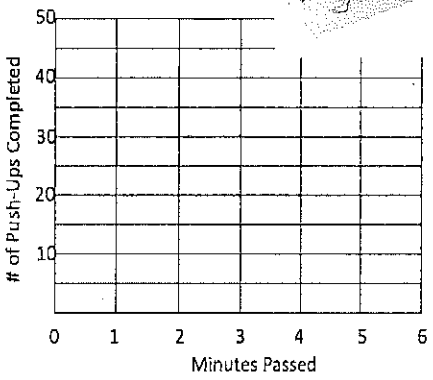
Name _____ Date _____ Class_____

Ms. Moulder, Mr. Washington, Mr. Stewart, and Ms. Bolden were training for a push-up contest. They recorded the number of push-ups they could do per minute in the tables below. Graph their data on the provided graph, then answer the questions below.

Ms. Moulder

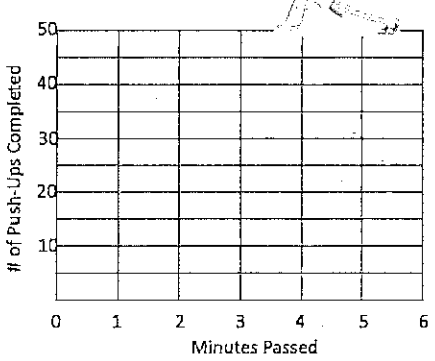


Mins.	Push -Ups
1	7
2	14
3	21
4	28
5	35



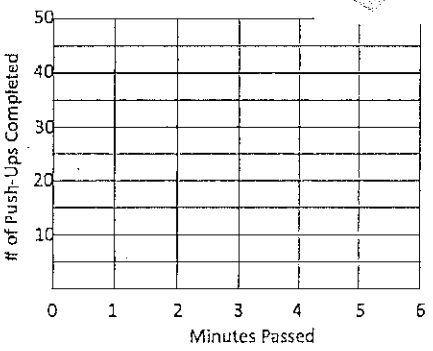
Mr. Washington

Mins.	Push -Ups
1	12
2	17
3	24
4	28
5	37

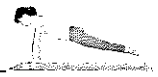


Mr. Stewart

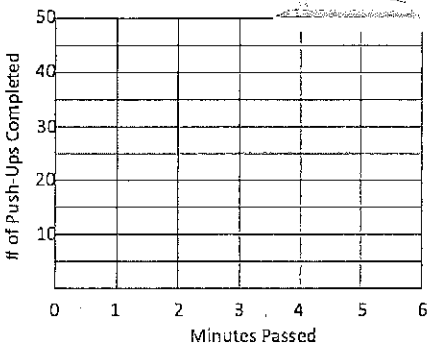
Mins	Push-Ups
1	8
2	16
3	24
4	32
5	40



Ms. Bolden



Mins	Push-Ups
1	8
2	19
3	25
4	29
5	34



1.) Predict the number of push-ups each teacher will do in 6 minutes, and plot that point on their graph. Which predictions do you feel most confident about? Explain:

2.) If the push-up contest is 12 minutes long, how many push-ups do you think each teacher will complete? Explain how you made your predictions.

1. You and your friend decide to have a competition to see who can save the most money for college. You open a new account and then plan to deposit $20 every month.

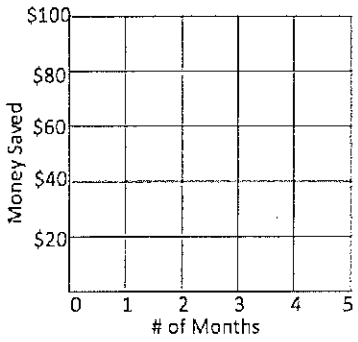
A) Write an equation for the amount of money, y, after x months:

_____

B) Complete the table of values:

# of Months	Amount of $
0	0
1	20
2	
3	60
4	

C) Make a graph:



D) This relationship is a **proportional relationship**. Why do you think that is?

2. Your friend already has $50 saved in an account, and he decides to add another $10 each month.

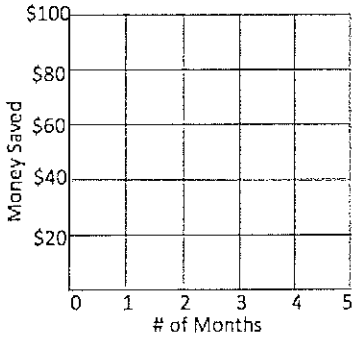
A) Write an equation for the amount of money, y, after x months:

_____

B) Complete the table of values:

# of Months	Amount of $
0	50
1	60
2	
3	
4	90

C) Make a graph:



D) This relationship is a **non- proportional relationship**. Why do you think that is?

Proportional Relationships, and Direct Variation:

- Proportional relationships_____ at a _____rate, and are therefore, more predictable than a relationship that is not proportional.

- If a relationship is proportional, x and y will both equal _____at the same time.

- Another way to say that a relationship is proportional is to say that it is in direct variation.

- When two variables are related in such a way that the ratio of their values always remains the same, the two variables are said to be in _____

For example:

Hours Worked	0	1	2	3
$ earned	$0	$5.00	$10.00	$15.00

This is a proportional relationship,. I know this because an additional $5 is earned for every 1 hour worked, and at 0 hours, $0 was earned.