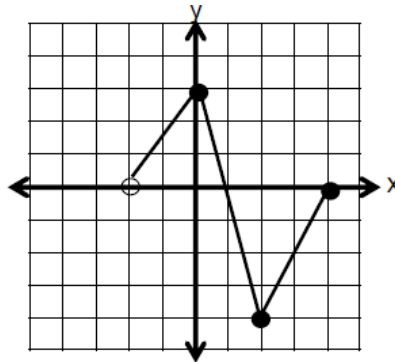


Name _____

Unit 3 Extra Practice 2013-2014

- 1) Johnny is constructing a graph of total profit his club will make for selling t-shirts. The club makes \$12 on each t-shirt. What would be a reasonable domain for this situation.
- 2) Hannah can type 22 words a minute and she must type an essay for her history class. If w is the total number of words she can type in m number of minutes, write a function that could model the situation. State an appropriate domain and range for the situation if she must have a 1000 word essay.

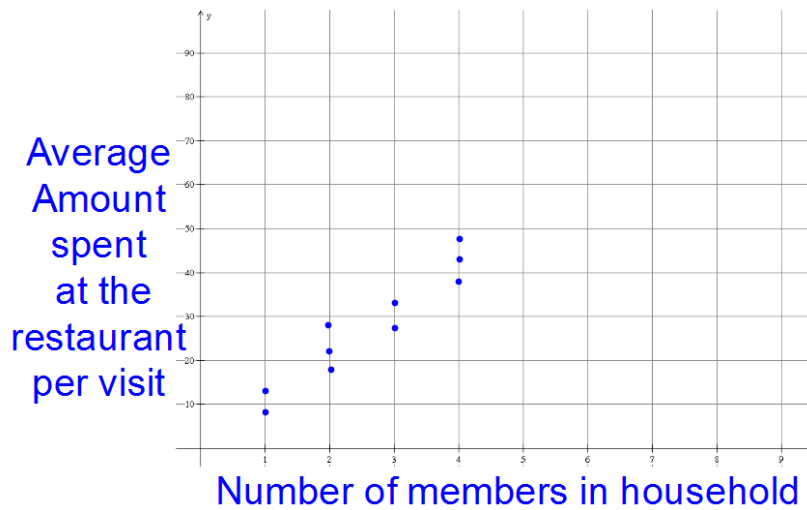
- 3) State the domain and range for the given function.



- 4) You need your hot water heater replaced. Bob the Plumber charges a flat rate of \$750 to install a new hot water heater. Pete's Plumbing will charge \$85 for the service call and \$50 an hour to complete the job. For what number of hours can it take Pete to replace the water heater and it still be cheaper than having Bob do it.
- 5) Solve the equation $5(2x + 5) - 3(x - 3) = \frac{3}{4}(8x - 12)$

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- 6) Ten families that ate at a local restaurant were asked how much on average do they spend at the restaurant. Their answers were recorded in the scatterplot below.



According to the results, how much could the owner of the restaurant expect a family of eight to spend when they eat at his restaurant?

- a) \$80 b) \$65 c) \$50 d) \$120

- 7) The graph of the equation $y = 3x - 7$ is translated 8 units up and 2 units left. What is the equation of the resulting graph?

- 8) Five more than three times a number is at most fifty.
What numbers could that number be?

- 9) Graph the parent function of $y = 5|x+2| - 7$.

