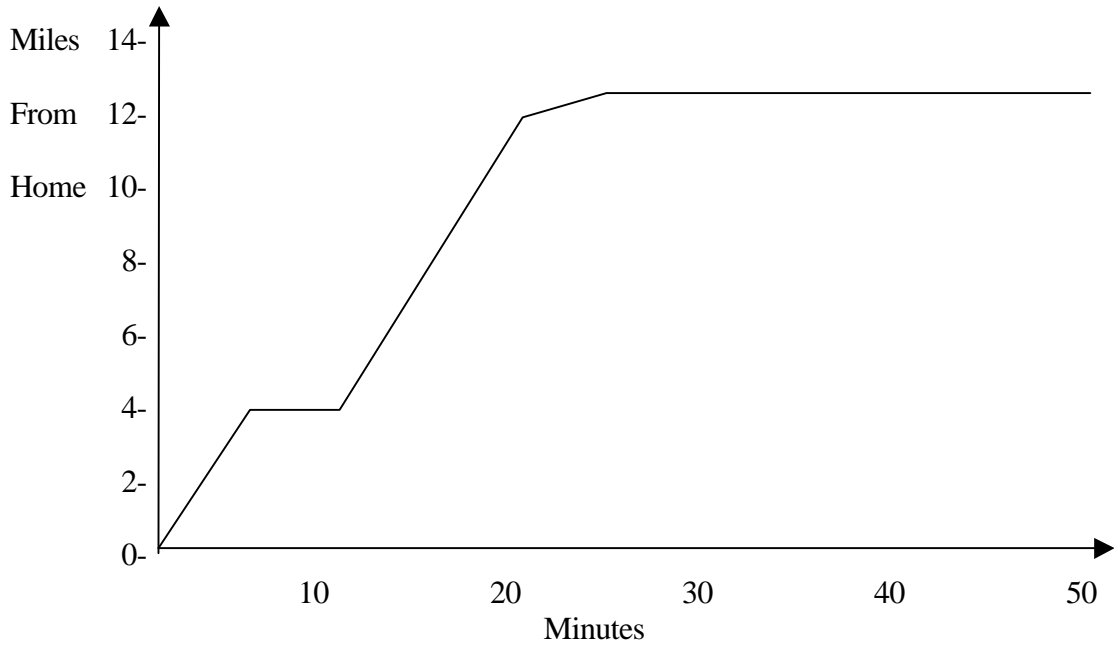


SAMPLE TEST I

1. Pizzas at Tonine's Parlor come in two sizes. The large is 12" in diameter. The small is 6" in diameter. Each is about 1" thick. The small costs \$3. The large costs \$9. Should you buy three small or one large if you want to get the most pizza for \$9. Show your calculations:

2. The graph below describes my distance from home as a function of time on one Wednesday morning. Describe my trip in English. Be sure to note times, speeds and distances traveled.



3. Mike has a starting salary of \$25,000. He will get a raise of \$1200 each year he works. (a) Write a **function** $S(x)$ that gives Mike's salary after x years on the job. (b) When will Mike's salary be \$35,800? Show your calculations:

(a) $S(x) =$ _____

(b) Mike's salary will be \$35,800 after _____ years on the job.

4. A 2 oz. potato cooks in 2.5 minutes in a microwave. A 5 oz. potato takes 4.2 minutes, a 6 oz. potato takes 6.0 minutes and an 8 oz potato takes 7.8 minutes. (a) Use your TI-82/3 or a spreadsheet to find the least squares line to predict cooking time (y) from weight (x).

$$y = \text{_____}x + \text{_____}.$$

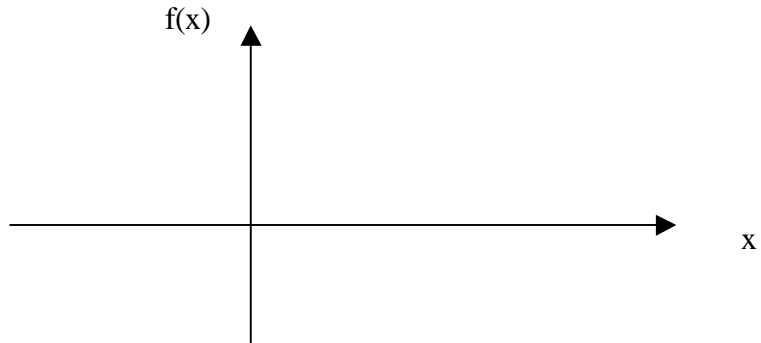
(b) Interpret the slope in English: _____

(c) Use your linear function to predict cooking time of a 12 oz. potato. _____

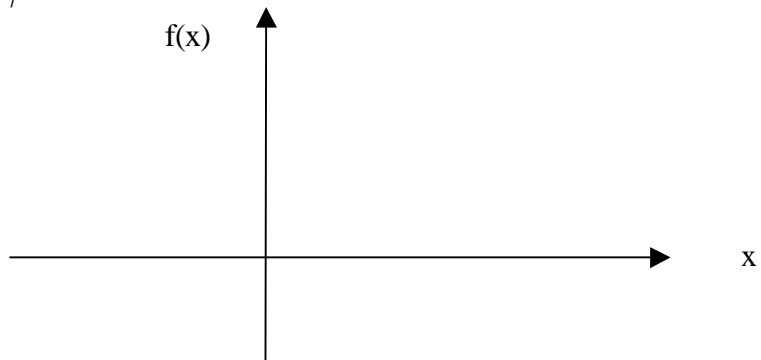
(d) A potato took 4 minutes to cook. How much did it weigh? Use your linear function to answer this question.

5. Graph the following:

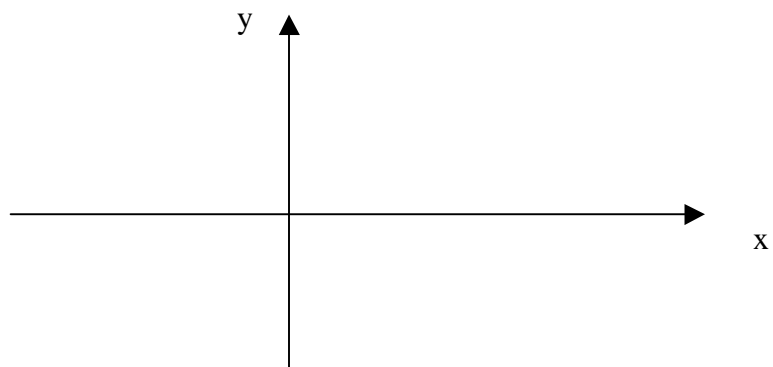
(a) $f(x) = [x]$, where $[x]$ denotes the greatest integer in x .



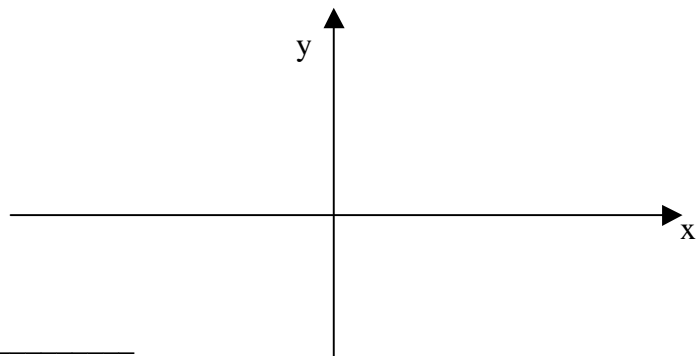
(b) $f(x) = \lfloor 3x + 4 \rfloor$



(c) $5y - 3x = 12$



(d) $y = 3x - 1$



Name: _____