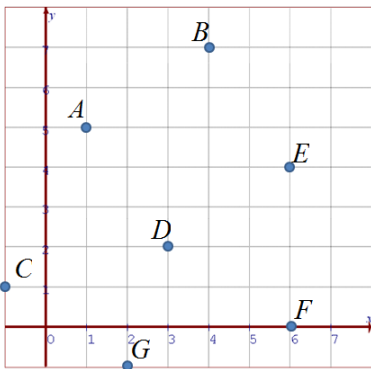Name:_____   Date:_____

Math 8 HW Section 10.1 Linear Relations

1. Given the following grid, find the coordinates of each of the following points

$A($, $)$ $B($, $)$

$C($, $)$ $D($, $)$

$E($, $)$ $F($, $)$

$G($, $)$

2. Given each graph, fill in the table of values given:

a)

Cost					
# Baskets	1	2	3	4	8

How much does it cost to buy 10 basketballs?

If you had $100, how many basketballs can you buy?

Write an equation for the relationship between the cost and the number of basketballs

b)

# People					
# Cars	1	4	5	6	20

How many people can each car take?

How many cars will you need for 85 people?

Write an equation for the number of people and the number of cars required:

3. For the two graphs above, should we connect the dots? Explain why or why not.

4. Given each scenario, indicate whether if it is a linear relationship or not. If not, explain why:

i)   Tim saves 3.25 each day and puts it in his piggy bank. The relationship between the number of days and how much he saves.

ii)   The number of people in a school doubles every day for 12 straight weeks. The relationship between the number of people vs the number of weeks.

iii) The side length of a square and the perimeter of a square

iv)   The side length of a cube and the volume of a cube

5. Jason owns a JappaDog stand and sells hotdogs at $3.50 each. Make a TOV for the first twenty hotdogs that he sells. Use the graph to illustrate his revenue. Label the graph.
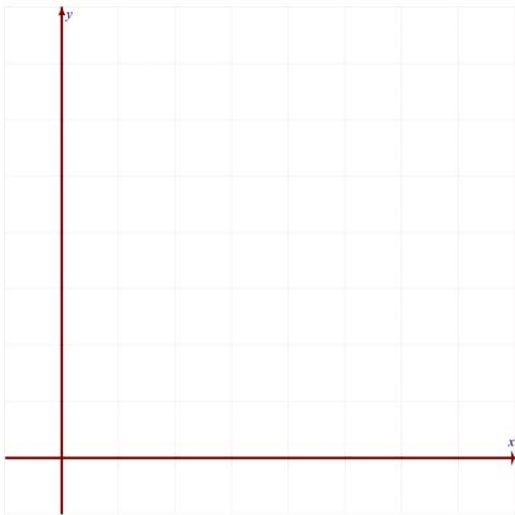
6. A taxi driver charge $1.50 for the first minute and then $.80 for each additional km he travels. Make a TOV for the first 10km and then draw a graph to illustrate the relationship.