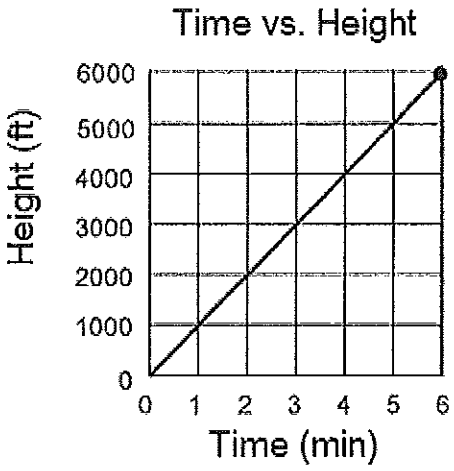
#1 Pg 6

Slope as a rate of Change **Date:** _____

1. The following represents the graph for a helium balloon's flight.



a. Determine the rate of change of the graph.

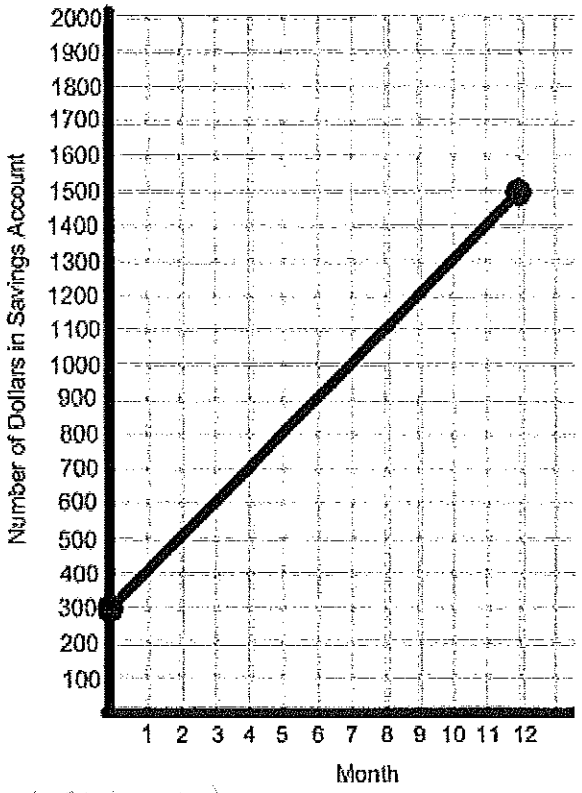
b. What does this slope (rate of change) mean?

c. When is the balloon at 5000 ft? Show this on your graph. _____

d. How high is the balloon off the ground at 2 hours ? Show this on your graph

e. Although not on the graph, when will the balloon reach 10 000 feet? Show your reasoning

2. The following represents the balance in Brady's savings account.



a. Find the slope of the graph.

b. What does the slope represent as a rate of change?

c. How much did Brady deposit when he opened the account?

d. At this rate how much money will Brady have in his account after 15 months. Show your reasoning.

e. If Brady deposited $500 to begin with, but continued to deposit the some amount each month what would this graph look like? Sketch it on the graph.

f. If Brady deposited $300 initially, but spent it all in five months show this on the graph? (by spending the same amt. each month)

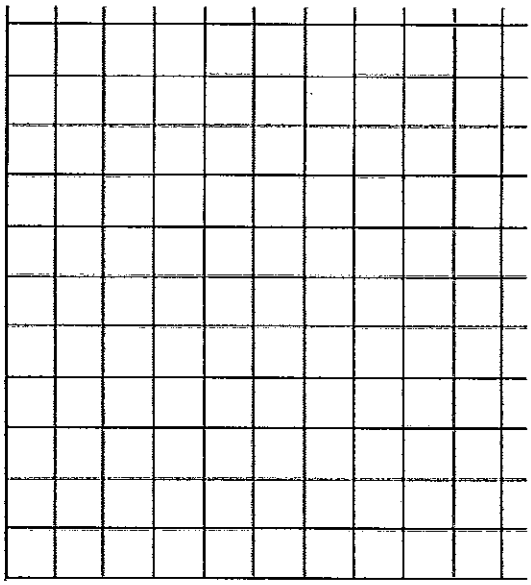
g. What would the slope of this line be? What does the negative sign indicate?

3. Rojen makes $7 per hour babysitting. Create a table of values and graph for this scenario

a. Find the rate of change of the graph.

b. What does it represent?

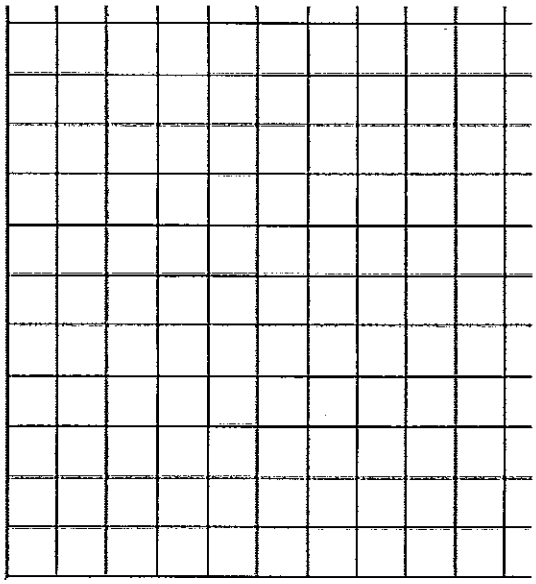
Time (h)	Money Made ($)
0	
1	
2	
3	
4	
5	



4. If it costs $25 to rent a car and 0.10 cents per kilometer drive create a graph for the scenario.
HINT: Even if you do not drive the car off the lot it will still cost you $25.

a. Find the rate of change of this graph.

Distance (Km)	Cost ($)
0	25
10	
20	
30	
40	
50	



b. What does it represent?

c. What is the value on the y-axis? How does it relate to the scenario?

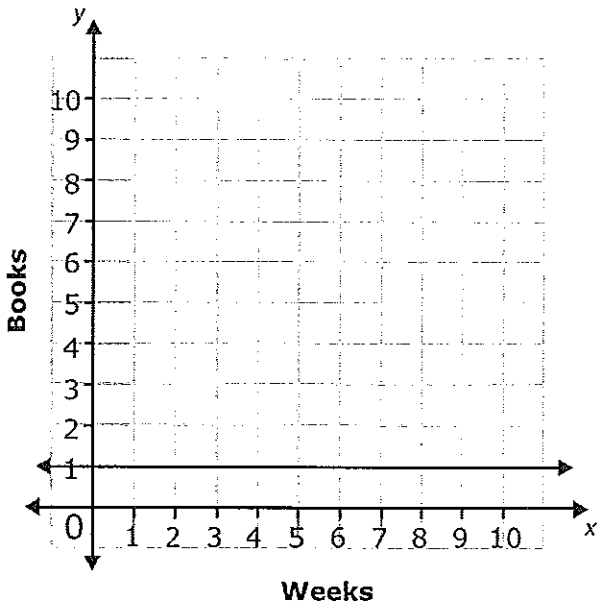
d. If you paid the same fee to rent the car ($25), but more per kilometer what would this look like? Sketch it on the graph.

5. a. What is the slope of this graph?

b. Interpret this slope as a rate of change.

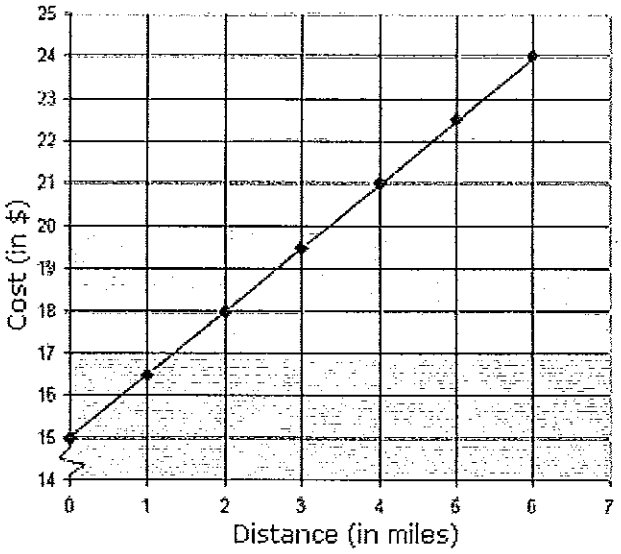
c. Explain this rate of change in words.

d) How many books has this person read in:
a. 2 weeks b. 8 weeks



6. a. What is the slope of this graph?

b. Interpret the slope as a rate of change.

c. What is the cost if the distance is zero?

d. Create a scenario to match this graph.