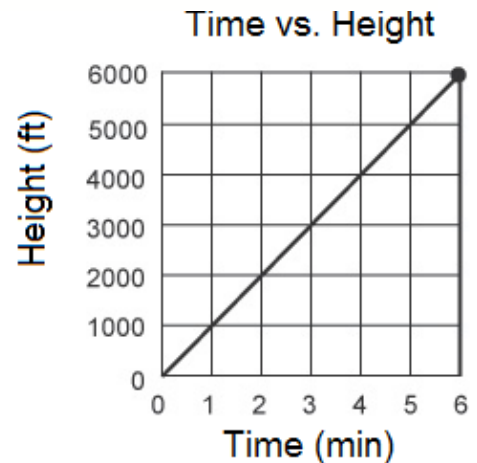


Lesson #4: Rate of Change Part 1 - Homework

Due Date: _____ 5A _____

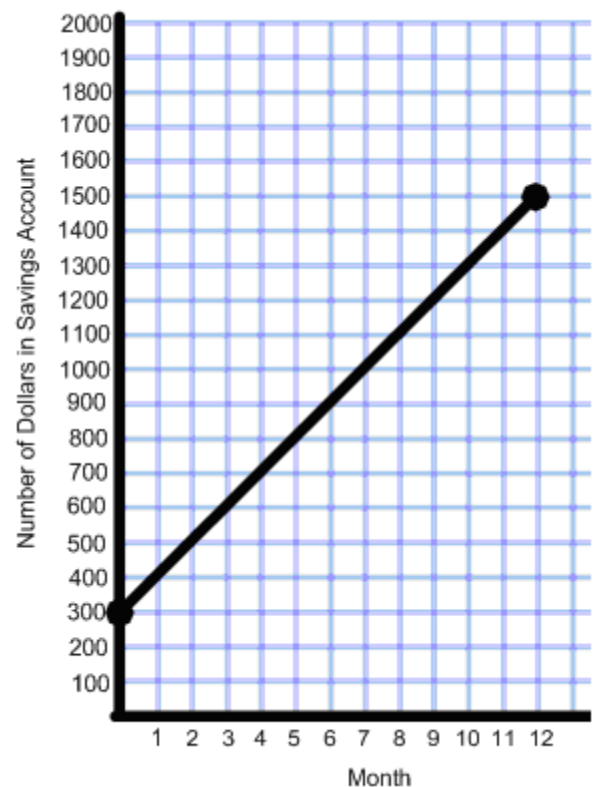
1. The following represents the graph for a helium balloon's flight.

- Determine the rate of change of the graph.
- What does this slope (rate of change) mean?
- When is the balloon at 5000 ft? Show this on your graph. _____
- How high is the balloon off the ground at 2 seconds? Show this on your graph
- 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.

- Find the slope of the graph.
- What does the slope represent as a rate of change?
- How much did Brady deposit when he opened the account?
- At this rate how much money will Brady have in his account after 15 months. Show your reasoning.
- If Brady deposited \$500 to begin with, but continued to deposit the same amount each month what would this graph look like? Sketch it on the graph.
- If Brady deposited \$300 initially, but spent it all in five months show this on the graph?
- What would the slope of this line be? What does the negative sign indicate?

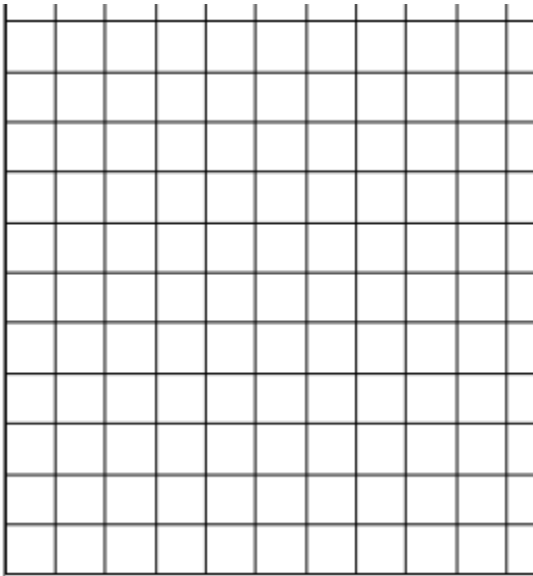


3. Rojen makes \$7 per hour babysitting. Create a table of values and graph for this scenario

a. Find the rate of change of the graph.

b. What does it represent?

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

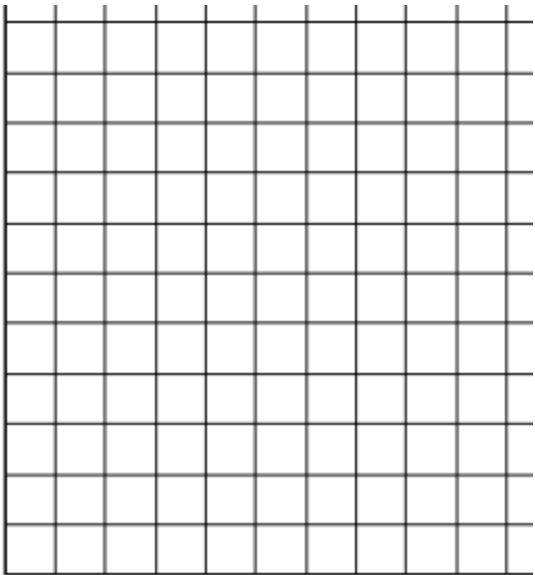


4. If it costs \$25 to rent a car and 0.10 cents per kilometer drive create a graph for the scenario.

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?

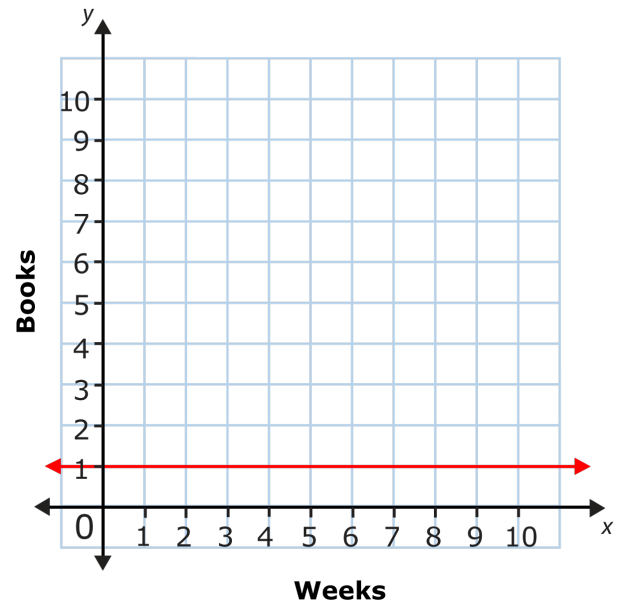
b. Interpret this slope as a rate of change.

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.

