

Math 9 – Coordinate Geometry

Name: _____

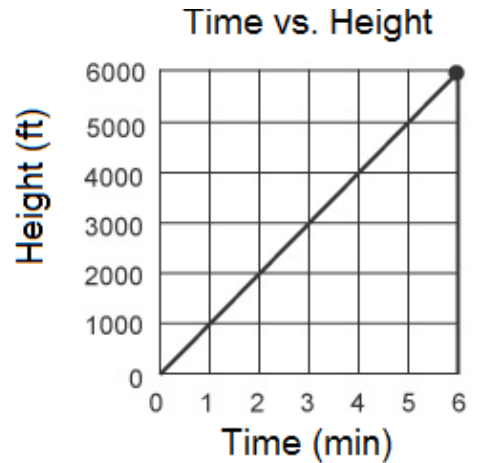
Lesson #4: Rate of Change

Homework

Date: _____

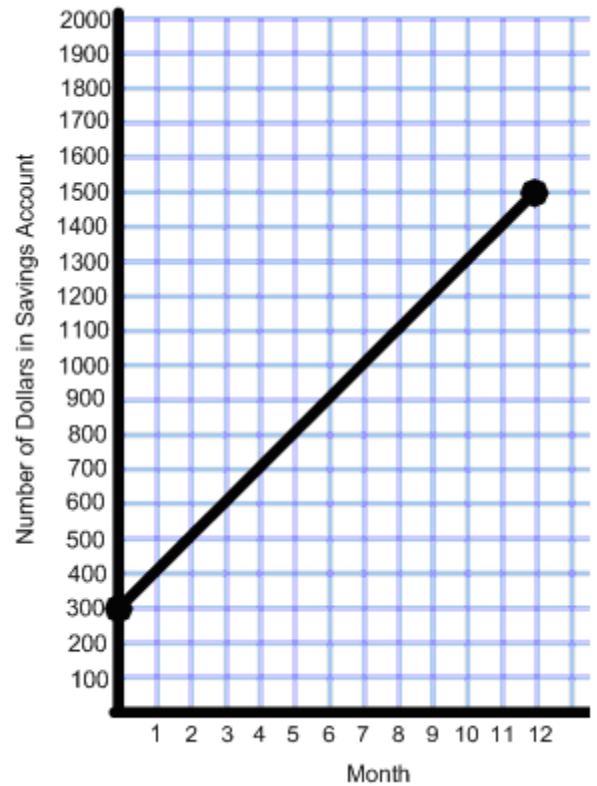
1. The following represents the graph for a helium balloon's flight.

- 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 minutes? 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.
- f. If Brady deposited \$300 initially, but spent it all in five months show this on the graph?
- g. What would the slope of this line be? What does the negative sign indicate?



3. In 1992, the price of an annual membership at Mr. Jensen's health club was \$225. In 2002, the price of the same membership was \$319.50. Find the rate of change in the price of the annual membership between 1992 and 2002.

4. After 30 baseball games, Bo Bichette had 25 hits. If after 100 games he had 80 hits, what is his average hits per baseball game.

5. Last Saturday Steve and Kelly went hiking in the mountains. When they started back at 2:00 P.M., their elevation was 3,560 feet above sea level. At 6:00 P.M., their elevation was 2,390 feet. Find the average rate of change of their elevation between 2:00 P.M. and 6:00 P.M.

6. In 1971, there were 323,000 university students in Canada. In 1997, there were 544,000 students enrolled in a Canadian university. Find the average rate of change, to the nearest hundred students per year.