

Average Rate of Change

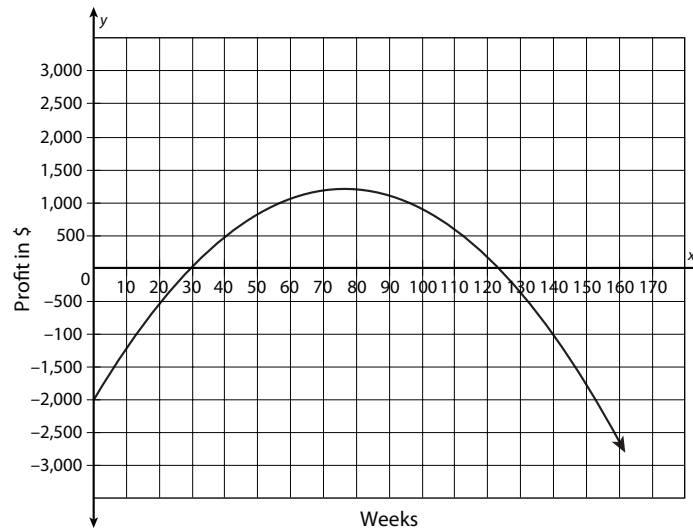
Pre-Assessment

Circle the letter of the best answer.

1. In the following table, what is the pattern between dependent values?

Hours worked	Money earned (\$)
8	120
16	240
24	360
32	480
40	600
48	720

- a. constant first difference
b. constant second difference
c. constant multiple
d. There is no pattern in the values.
2. The following graph represents a bicycle company's profit over a period of time. What is the approximate rate of change on the interval $[40, 95]$?



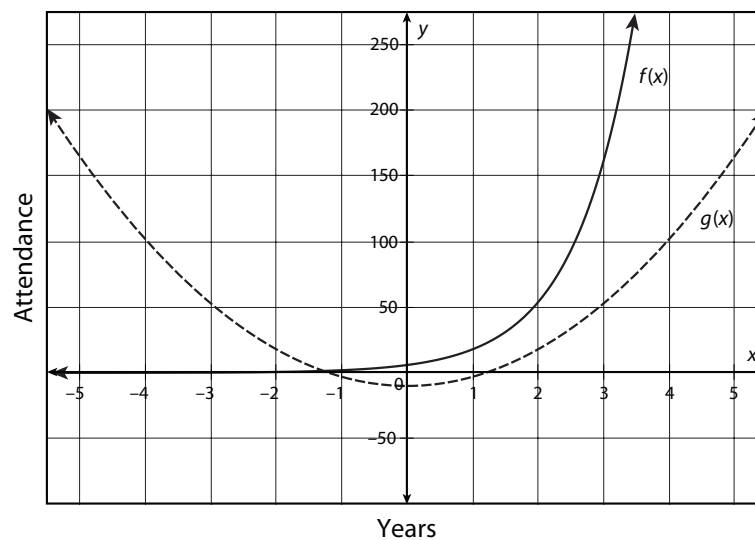
- a. $-\$0.11$ per week
b. $\$9$ per week
c. $\$11$ per week
d. The rate of change cannot be determined.

continued

3. Antwon's new boat cost \$38,000. Every year its value decreases by 6%. Let V be the value of the boat t years after it is purchased. What type of function best models the value of the boat?
- a. linear function
b. quadratic function
c. exponential function
d. cubic function
4. Use the following table to determine the rate of change on the interval $[2, 5]$.

Years	Height of shrub (inches)
1	3
2	9
3	19
4	33
5	51

- a. 4 inches per year
b. 9 inches per year
c. 12 inches per year
d. 14 inches per year
5. The function $g(x)$ can be described as:



- a. an exponential function with a positive initial value
b. an exponential function with a negative initial value
c. a quadratic function with a positive leading coefficient
d. a quadratic function with a negative leading coefficient