

## Algebra In-Class Rate of Change

Name: \_\_\_\_\_

Period: \_\_\_\_

\_\_\_\_\_ allows you to see the relationship between two quantities that are changing. If one quantity *depends* on the other, you can find rate of change by using this formula:

Rate of Change = \_\_\_\_\_ = \_\_\_\_\_

Cost of Renting a Computer	
Number of Days	Cost
x	y
1	60
2	75
3	90
4	105
5	120

Use the data in the table to the left to answer the following:

1. Does cost depend on the number of days?
2. Is the change from one x value to the next the same for each consecutive day? \_\_\_\_\_
3. What is the change from one x value to the next? \_\_\_\_\_
4. Is the change from one y value to the next the same for each consecutive day? \_\_\_\_\_
5. What is the change from one y value to the next? \_\_\_\_\_
6. Rate of change =  $\frac{\text{Change in } \underline{\hspace{1cm}}}{\text{Change in } \underline{\hspace{1cm}}} = \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$
7. It costs \$ \_\_\_\_\_ for each day a computer is rented after the first day.

The rate of change in the following table is constant. Find the rate of change.

Temperature increase	
Time (hours)	Temperature (F)
1	25
5	35
10	45
15	55

You can also use a graph to find a rate of change. Recall that the x variable (called the \_\_\_\_\_ variable) is plotted on the horizontal axis and the y variable (also called the \_\_\_\_\_ variable) is plotted on the vertical axis.

When finding a rate of change from a graph, we can use the following formula:

Rate of Change = \_\_\_\_\_