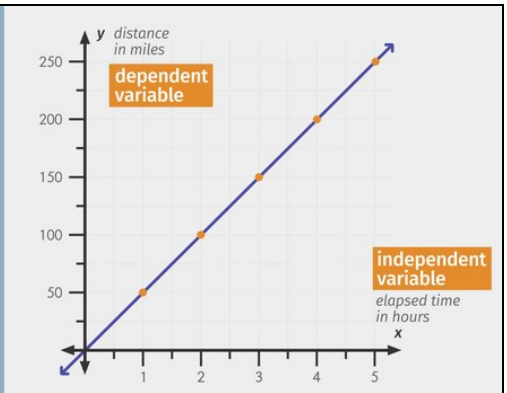
Printable Worksheets from sofatutor.com

# Constant Rate of Change

| (x) Time (in hours) | (y) Distance (in miles) |
|---|---|
| 1 | 50 |
| 2 | 100 |
| 3 | 150 |
| 4 | 200 |
| 5 | 250 |




1 **Identify the steps for finding the equation representing a constant rate of change.**

2 Explain how to get the equation representing a constant rate of change.

3 Fill in the table using the given constant rate of change equation.

4 Determine what the distance traveled is given a certain number of hours.

5 Use a table to plot points on a graph.

6 Determine the rate of change from the table.

\+ with lots of tips, answer keys, and detailed answer explanations for all of the problems.

# Identify the steps for finding the equation representing a constant rate of change.

Sort the steps in the correct order.

Help Giovanni order the steps necessary for finding the distance flown by the carrier pigeon by writing and using an equation.

A. Determine the relationship between rate of change, time, and distance, and write an equation using only variables.

B. Multiply constant rate of change by a given time to determine distance traveled in that amount of time.

C. Write constant rate of change as a ratio in whole terms.

D. Substitute constant rate of change into equation.

CORRECT ORDER ☐ ☐ ☐ ☐

# Hints for solving these problems

1 of 6

## Identify the steps for finding the equation representing a constant rate of change.

### Hint #1

It is important to write a formula before substituting values in for variables.

---

### Hint #2

Recall that the distance formula is $d = rt$

---

## Answers and detailed answer explanations for these problems

1 of 6

# Identify the steps for finding the equation representing a constant rate of change.

**Answer key:** C, A, D, B

While there is more than one way to write the equation relating constant rate of change, time, and distance.

If the goal is to determine the distance given the rate and time, however, it is necessary to use the steps below:

- First, you need to make sure that your rate of change is expressed in whole terms. This means that the numerator and denominator of your ratio should be whole numbers, rather than fractions.
- Next, you need to write an equation that properly relates the three variables. Recall that distance equals rate times time.
- Then, since you've already determined the constant rate of change in whole terms, you can substitute this value into your formula.
- Lastly, in order to determine the distance that is flown over a certain number of hours, multiply the constant rate of change by the given time.