

Challenge #1

Determine the independent and dependent variable in each situation.

1. A study was done to find if different tire treads affect the braking distance of a car.
2. The time it takes to run a mile depends on the person's running speed.
3. The higher the temperature of the air in the oven, the faster a cake will bake.

Challenge #2

Determine the independent and dependent variable in each situation.

1. The height of bean plants depends on the amount of water they receive.
2. Lemon trees receiving the most water produced the most lemons.
3. An investigation found that more bushels of potatoes were produced when the soil was fertilized more.

Challenge #3

Determine the independent and dependent variable in each situation.

1. Students measured the temperature of the water at different depths in Stroud Lake and found that the temperature varied.
2. The amount of pollution produced by cars was measured for cars using gasoline containing different amounts of lead.
3. Four groups of rats are first massed and then fed identical diets except for the amount of vitamin A they receive. Each group gets a different amount. After 3 weeks on the diet, the rats' masses are measured again to see if there has been a decrease.

Challenge #4

Determine the independent and dependent variable in each situation.

1. A student wants to know how the mass of a paper airplane will affect the distance it will fly.
2. Two groups of students were tested to compare their speed working math problems. One group used calculators, and the other group didn't.
3. Children of different ages were given the same puzzle to assemble. The puzzle assembly time was measured.

Challenge #5

Determine the independent and dependent variable in each situation.

1. The higher the temperature of water, the faster the egg will cook.
2. An investigation was done to see if keeping the lights on for different amounts of time each day affected the number of eggs the chicken lay.
3. The time it takes to run a mile depends on the amount of exercise a person gets.

Challenge #6

Determine the independent and dependent variable in each situation.

1. Grass will grow taller if it is watered and fertilized more.
2. The amount of algae growth in lakes seems to be directly related to the number of sacks of fertilizer sold.
3. The score on the final test is related to the amount of time the student spent studying.

Challenge #7

Determine the independent and dependent variable in each situation.

1. If I practice guitar longer, I will play better.
2. The grades I make depend on how much I study.
3. Patsy is publishing a book. Print Shop Plus charges a set-up fee of \$50 and \$0.08 per page. Her book contains 96 pages.

Challenge #8

Determine the independent and dependent variable in each situation.

1. The cost of books from a discount book company is \$1.50 each plus \$4 shipping.
2. The time you must wait in line depends on how many people are in front of you.
3. The more times you wash jeans, the faded the color will be.

