

Identifying Independent and Dependent Variables

Name: _____

For each set of variables shown below, determine which is the independent variable and which is the dependent variable. Write "I" by the independent and "D" by the dependent.

	the number of minutes running		the amount of calories burned
	the grade made on a math test		the number of questions answered incorrectly
	the amount of money earned		the number of yards mowed
	the number of gallons of gas put in the car		the number of miles the car is able to drive
	the side length of a square		the perimeter of the square

Rewrite each situation showing dependency, and then identify the dependent and the independent variables.

1. A wheel barrow with several bricks weighs more than a wheel barrow with just a few bricks.

The _____ depends on _____

Dependent: _____ Independent: _____

2. The car wreck was very large, so many emergency workers were there.

The _____ depends on _____

Dependent: _____ Independent: _____

3. The temperature of the iced tea in the fridge dropped each minute.

The _____ depends on _____

Dependent: _____ Independent: _____

4. The bill at the bowling alley was high because several people attended the bowling party.

The _____ depends on _____

Dependent: _____ Independent: _____

5. A basketball team played a total of 154 games last season. The number of games won, W , and the number of games lost, L , are represented by the equation $W=154-L$.

What quantity does the independent variable represent? _____

What quantity does the dependent variable represent? _____

6. A limo driver charges an initial fee of \$150 plus \$3.00 per mile driven. What is the independent variable quantity in this situation?
- The initial fee
 - The total cost charged by the limo driver
 - The cost per each mile driven
 - The number of miles driven

7. At Best Buy, all Samsung Galaxy cell phones are on sale for a discount of 25%. Which statement best represents the functional relationship between the sale price of a cell phone and the original price?
- The original price is dependent on the sale price
 - The sale price and the original price are both dependent on each other.
 - There is not enough information to determine the relationship.
 - The sale price is dependent on the original price.

8. The cost for renting a bounce house is a function of the number of hours of the rental. In this situation, what is the dependent variable?
- The function
 - The number of hours the bounce house is rented
 - The cost of the rental
 - The bounce house

9. The table below represents the relationship between the number of miles Maggie runs and the number of calories she burns. What is the independent variable in this situation?

Miles run	3	4	5	6	7
Calories burned	105	210	315	420	525

10. The table below represents the relationship between the amount of Starbucks gift cards bought and the total amount of money made by Starbucks. In this situation, what is the dependent variable? _____

Gift cards bought	10	20	30	40	50
Total money made	100	200	300	400	500