# Bellwork    Alg 2    Monday, September 23, 2019

Safety investigators want to determine whether they can predict how long it takes a car moving at various speeds to stop. They believe there is a relationship between the speed of a car and the distance it takes to stop as measured by the length of the skid mark left during an emergency stop.

In a test to determine if there is a relationship between the speed of a car and the length of the skid mark made during an emergency stop, safety investigators use a dry road surface and tires with average wear.
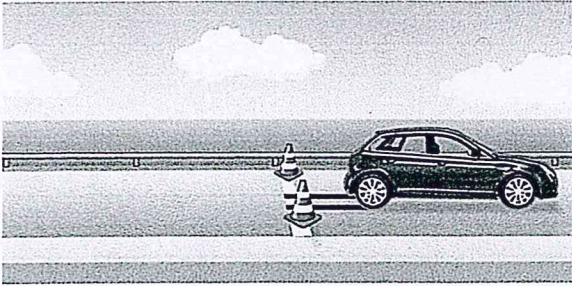


Discuss the following questions with your table partner then answer them in your own words.  If you are sitting by yourself today discuss with those in front or behind you.

1.  What are the two variables in this scenario?


2.  Which variable do the safety investigators think of as the independent variable, and which do they think of as the dependent variable?  How do you know?


3.  Does the relationship between these two variables represent a function?  Why or why not?

Bellwork    Alg 2    Monday, September 23, 2019    *Answers*

Safety investigators want to determine whether they can predict how long it takes a car moving at various speeds to stop. They believe there is a relationship between the speed of a car and the distance it takes to stop as measured by the length of the skid mark left during an emergency stop.

In a test to determine if there is a relationship between the speed of a car and the length of the skid mark made during an emergency stop, safety investigators use a dry road surface and tires with average wear.

Discuss the following questions with your table partner then answer them in your own words.  If you are sitting by yourself today discuss with those in front or behind you.

1.  What are the two variables in this scenario?    Speed & Skid mark length

2.  Which variable do the safety investigators think of as the independent variable, and which do they think of as the dependent variable?  How do you know?

dependent — SKID MARK LENGTH   Because it is the output/result of the situation

independent — SPEED   Because it is the input, the controlling factor, of the situation

3.  Does the relationship between these two variables represent a function?  Why or why not?

Yes, for each speed (input) there is only one length of skid mark (output)