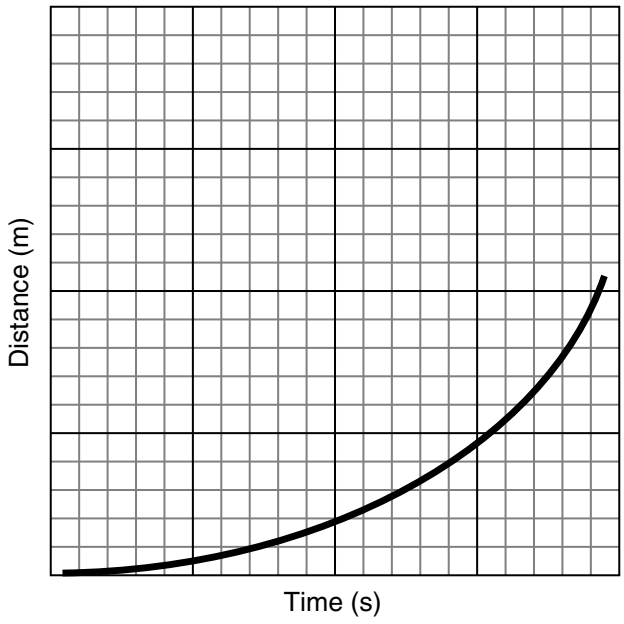
Checkout Questions

Lab 8. Force and Motion

How Do Changes in Pulling Force Affect the Motion of an Object?

1. Describe a general rule for predicting the motion of an object that is being pushed or pulled by unbalanced forces.

2. Below is a position versus time graph for a car accelerating away from a stoplight.



Draw a velocity versus time graph for the same car.

Explain your answer. Why did you draw your graph that way?

3. Experiments are the best way to get answers during a scientific investigation.

    a. I agree with this statement.
    b. I disagree with this statement.

    Explain your answer, using an example from your investigation about force and motion.

4. The scientific method guides scientists when they do their work.

    a. I agree with this statement.
    b. I disagree with this statement.

    Explain your answer, using an example from your investigation about force and motion.

5. Scientists sometimes study systems that are very large or very small, and sometimes scientists study systems that have lots of components. It is useful to make models of complex systems to better understand what is going on. Explain how models can be useful for understanding systems, using an example from your investigation about force and motion.

6. It is often important to understand the relationships between components of a system. Explain why it is important to identify factors that cause a system to become unstable, using an example from your investigation about force and motion.