

Finalizing Friction Quiz

Name: _____ Date: _____

Short Answer Instructions: Answer the following questions in complete sentences.

1. What conditions had the shortest stopping distance? Why?

2. What are some factors that could have caused errors in your data during the simulation?

Multiple Choice Instructions: Circle the correct answer and use the space provided to explain your answer.

3. Which of the following is an example of increasing friction? Briefly explain your answer.
 - a. Squirting oil into door hinges
 - b. Spreading sand on icy roads
 - c. Waxing a snowboard

4. Which of the following is NOT an example of friction? Briefly explain your answer.
- a. A baseball traveling through the air
 - b. A box sitting on a flat table
 - c. A boat floating across a lake

Further Your Thinking: Use the equation below to answer the questions.

$$F = m \times a$$

5. A car starts out traveling at 22.4 m/s (about 50 mph) and has a mass of 2722 kilograms. The driver sees a deer in the distance and slams on the brakes causing a force of 1500 newtons. Using the equation provided, what is the acceleration of the vehicle?

6. What does this acceleration mean?
