

Physics

Friction, Form: A

Name: _____

Date: _____

Period: _____

Primary Peer Reviewer: _____

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Section 1. Multiple Choice

1. What are the two factors that affect the friction force between two surfaces?

- (a) mass and weight
- (b) type of surface and how hard the surfaces push together
- (c) mass and distance
- (d) type of surface and amount of gravity

2. What is one way you could reduce the friction between two surfaces?

- (a) put oil on the surfaces
- (b) put glue on the surfaces
- (c) allow one surface to rust
- (d) make one of the surfaces rougher.

3. What kind of friction occurs when objects are not moving?

- (a) Static friction
- (b) Fluid friction
- (c) Sliding friction
- (d) Rolling friction

4. Gymnasts often use chalk on their hands. This is to -

- (a) decrease friction
- (b) increase friction
- (c) increase gravity
- (d) decrease gravity

5. Friction always acts -

- (a) opposite any motion
- (b) opposite the tendency to move
- (c) Both A and B
- (d) none of the above

6. Which of the following would be the most slippery surface?

- (a) Teflon $\mu = 0.04$
- (b) Ice $\mu = 0.05$
- (c) Banana Peel $\mu = 0.066$
- (d) Rubber $\mu = 1.02$

7. You are thinking about cooking an egg for breakfast. Which pan should you choose to use the least amount of oil, yet still not have the egg stick?
- (a) Well seasoned cast iron - $\mu = 0.15$
 - (b) Teflon - $\mu = 0.04$
 - (c) Aluminum - $\mu = 0.3$
 - (d) Ceramic (like Copper Chef, etc.) $\mu = 0.17$

Section 2. Free Response

8. List 2 situations in which friction is **bad**. Explain why it is bad in each situation.

(a)

(b)

9. List 2 situations in which friction is **good**. Explain why it is bad in each situation.

(a)

(b)

Answer Key for Exam A

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