

# Physics

Friction, Form: A

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Period: \_\_\_\_\_

Primary Peer Reviewer: \_\_\_\_\_

+1	0	-1	$\Sigma$

## 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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