

## Fiction Facts (Student)

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

1. Match each of the following terms on the left to the most appropriate definition on the right.

\_\_\_\_ friction

A. amount of matter in an object

\_\_\_\_ mass

B. gravitational force on an object

\_\_\_\_  $\mu$

C. ratio of the frictional force to the normal force

\_\_\_\_ normal force

D. force that acts opposite to motion or attempted motion of an object

\_\_\_\_ weight

E. perpendicular force exerted by a surface

2. Explain the difference between static friction and kinetic friction. Give a numerical example.

3. A box is being pushed westward across a surface. What is the direction of the frictional force?

A. West

B. East

C. up

D. down

4. A magnet is sliding down a fridge door. What is the direction of the frictional force acting on the magnet?

A. up

B. down

C. into the fridge door

D. out of the fridge door

5. Place the following in order from lowest to highest coefficient of kinetic friction.

Steel on steel, dry

Rubber on ice

Aluminum on steel

Teflon on Teflon

Rubber on concrete, wet

Cartilage on synovial fluid

6. Why do tires have treads?