

Name _____ Date _____
Teacher _____ Period _____

Friction 2 Worksheet

Directions: Answer the following question. Make sure to show your work for each problem. Watch your units.

1. A horizontal force of 300.0 N is required to pull a 145.0 kg trunk across the floor at a constant speed. Find the coefficient of kinetic friction.

2. How much force must be applied to push a 1.25 kg book across the desk at a constant speed if the coefficient of kinetic friction is 0.30?

3. A force of 115.0 N is applied horizontally to a 25.0 kg box to move it across a horizontal floor. If the box has an acceleration of 3.00 m/s^2 , find the coefficient of friction.

4. A 1400.0 N force is applied on a 250.0 kg crate to move it across the floor. The coefficient of friction between the crate and the floor is 0.22.
 - a. What is the net force of the crate?

 - b. What is the acceleration of the crate?

5. If you use a horizontal force of 40.0 N to slide a 14.0 kg wooden crate across a floor at a constant velocity, what is the coefficient of kinetic friction between the crate and the floor?
6. An applied force of 45.0 N accelerates a 7.5 kg block at 5.0 m/s^2 along a horizontal surface.
- How large is the frictional force?
 - What is the coefficient of friction?
7. A 185.0 kg crate is pushed horizontally with a force of 800.0 N. If the coefficient of friction is 0.35, calculate the acceleration of the crate.