Friction and Normal Froce

In-class Assignment:

1.

a) What is the coefficient of static friction?

b) What is the coefficient of kinetic friction?

c) What force is friction proportional to?

d)How does kinetic friction compare to static friction for the same object and same surfaces of contact?

e) Describe normal force.

f) When is the magnitude of normal force equal to the weight of an object?

g) How do normal force and weight differ and in what way are they similar?

2. Find the mass of an object that rests on a horizontal surface and requires an applied force of 500 N in order to start moving. The coefficient of static friction between the surfaces of contact is 0.35 and the coefficient of kinetic friction for the same surfaces is 0.28.

3. Design a simple experiment that would help you decide how coefficients of static friction compare for several blocks of the same shape and mass but of different surface material.