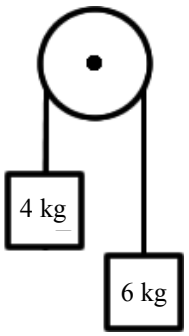
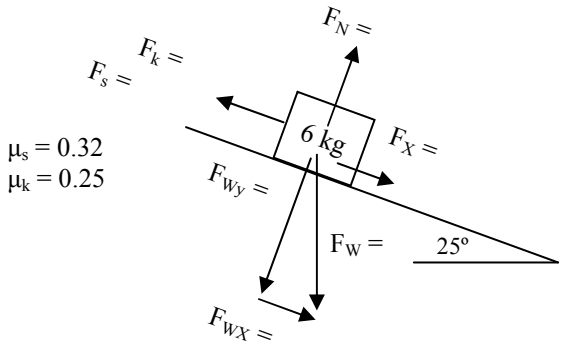
A-Day: Due Fri., Nov 7 (Assigned: 11/5)
B-Day: Due Mon., Nov 10 (Assigned: 11/6)

2008 Forces 7—Test Review



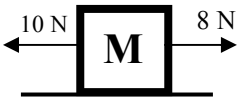
1. Use your "Connected Objects" notes to answer the following.
   A. Give the equations for the two connected objects:
   <u>4 kg mass</u>: <u>6 kg mass</u>:

   B. Find the acceleration of the system.



2. A. Fill in the diagram at the right.

   B. Will the object slide or not?

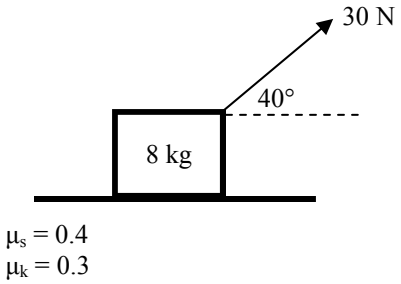


3. Use the diagram at the left to answer the following:
   A. Are the forces balanced or unbalanced?
   B. What is the net force?

   C. Is the net force zero or nonzero?
   D. So, could the object be at rest?
   E. Is the object at equilibrium?
   F. Is it accelerating?

4. Show your work on the diagram.
   A. Resolve the 30 N force.
   B. Calculate the normal force.
   C. Calculate static and kinetic friction.
   D. Will is slide?

   E. If yes, calculate the acceleration. If not how much more force is necessary to start it sliding?



5. A 6 kg object at rest accelerates for 10 seconds, traveling 115 m to the right.
   A. Find the acceleration of the object.

   B. Calculate the net force acting on the object.

6. An object with more _____ has more inertia. V_____ has no affect on inertia.

7. What is centripetal force?

8. Which of Newton's Laws are these:
   A. ___ More force causes more acceleration. More mass causes less acceleration.
   B. ___ If object 1 pushes on object 2, object 2 pushes back on object 1 with an equal and opposite force.
   C. ___ If there is no net force on an object it will remain at constant velocity, at rest, or at constant speed and direction.