Friction and Efficiency Worksheet 1

Instructions: add your weight (in kg) to the mass given, add your height (in m) to the distance given.

1. A force of 625 N is applied to an object with a mass of 32 kg. If the object slides on a surface with a coefficient of friction of .35 for a distance of 8.2 m, what is the total work given to the object?
2. What acceleration does the object have?
3. What is the final velocity of the object?
4. What is the efficiency of this system?
5. An object with a mass of 55 kg has an acceleration of 2.5 $^{m}/\_{s}$. If the coefficient of sliding friction is .52, what is the efficiency of this system?