Written Homework #11　　　　　Physics 131 Spring 2009

Due on Monday 27 April 2009 at the beginning of lecture.

Write down your name and student ID number.

You decide to remodel your kitchen and need to slide the refrigerator across the horizontal floor over a distance of 5 m. The refrigerator weighs 400 lbs and slides with constant speed. The coefficient of kinetic friction is 0.30.

　　a.　As you push the refrigerator across the floor, how much work do you do?

　　b.　What total energy do you expend? Assume 25% efficiency.

　　c.　What fraction of a 300-Calorie pizza slice must you eat to supply that energy?

Show your work to get full credit.