Homework 1

Complete Part I first, by taking notes that you will keep for yourself. (*Do not turn these in.)* Type up your answers to each of the questions in Part II and submit it in one double-spaced, Word document with your name on the top under the title. Use 12-point Times New Roman Font with 1" margins on all sides. If you have to do a calculation, solve the problem by hand on a separate sheet of paper. Then take a picture of your work and paste it into your word document in an appropriate place. When you are done upload this into the Dropbox on Blazeview. If you are unable to use Word for the assignment, you may use another software package and upload a pdf instead.

PART I: Notes

1. Read and take notes on the video "Why things move."
2. Re-watch and take notes on the Chat Session from the first day of class.

PART II: Assignment (25 points total)

1. Define the following terms in your **own words**: (1 *points each*)
    a. Scientific method
    b. Law
    c. Theory
    d. Force
2. Convert each of the following into the appropriate units: (2 *points each*)
    a. 500 m = _____ km
    b. 2.5 hr = _____ s
    c. 36 km/hr = _____ m/s
3. How much distance will you cover if you drive at 40 km/hr for 3 hours? (3 *points*)
4. If you increase your speed from 20 m/s to 35 m/s in 3 s, what is your acceleration? (3 *points*)
5. Fill in the blank: Joe pulls on the box with a force of 200 N but the box **does not move**. Thus, the acceleration is ____ m/s^2 and the frictional force f is _____N. (4 *points*)
6. Joe pulls on the box hard enough to overcome the static friction and starts the box moving. Joe now pulls with a force of 400N and the box slides at a **constant velocity**. Is the sliding (or kinetic) friction, greater than, less than, or equal to the force he is pulling the box with? Explain your answer. (5 *points*)