Homework 2

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 "What is Energy".

PART II: Assignment (25 points total)
1. Define the following terms in your **own words**: (1 _points each_)
    a. Work
    b. Energy
    c. Conservation of Energy
    d. Mechanical Energy
2. Suppose you wish to lift a 300 N object to a height of 2 m.
    a. How much work is done? (4 _points_)
    b. Neglecting friction, how much work is done if you push the object up a 3 m long ramp? (4 _points_)
    c. How much power is used to get it up the ramp in 30 s?   (4 _points_)
3. Explain what happens to the energy in a bouncing ball since each succeeding bounce is lower in height. (5 _points_)
4. Complete the following diagram for a swinging ball. Position (1) is highest point. (1 _point each_)