

Physics 115
Homework 1
Due Tuesday September 8, 2009

1. What is Light?

2. Determine whether in each of the following circumstances the energy of the system of interest in question has increased, decreased or remained the same. Explain your reasoning.
 - You pull a wagon (the system) to the top of a hill.

 - The same wagon rolls down the hill and comes to rest at the bottom of the hill.

 - A sled, initially at rest on some ice, is pushed until it reaches some speed (at which time you the pusher falls down!).

 - A child's merry go round is started turning round and round.

 - A light bulb (your system) is turned on.

 - A light bulb is connected to a battery (your system is the battery)

3. Describe about yourself briefly in a paragraph or two.