Complete the following examples using the appropriate formula below. Be sure to show all work!

Formulas: Kinetic Energy= $\frac{mv^2}{2}$ Potential energy= mgh

1. You serve a volleyball with a mass of 2.1 kg. The ball leaves your hand with a speed of 30m/s. The ball has _____ energy. Calculate it.

2. A baby carriage is sitting at the top of a hill that is 21 m high. The carriage with the baby weighs 12 kg. The carriage has _____ energy. Calculate it.

3. A car is traveling with a velocity of 40 m/s and has a mass of 1120 Kg. The car has _____ energy. Calculate it.

4. A cinder block is sitting on a platform 20 m high. It weighs 79 kg. The block has _____ energy. Calculate it.

5. There is a bell at the top of a tower that is 45 m high. The bell weighs 190 kg. The bell has _____ energy. Calculate it.

6. A roller coaster is at the top of a 72 m hill and weighs 966 kg. The coaster (at this moment) has _____ energy. Calculate it.