Physics
Kinetic and Potential Energy Problems #2

Name: _____ Block: _____ Date: _____

Must show all work, proper units to receive credit.
Note: Look at units carefully.

1. A water-powered turbine makes electricity form energy of falling water. Every second 100. kg of water falls from a height of 200. dm. How much potential energy does the water contain?

2. At the end of the ride up a steep hill, Ken was at an elevation of 1.6 km above what he started. He figured out that he and his bicycle had accomplished 1,000.0 kilojoules of work. If Ken has a mass of 54.0 kg, what is the mass of his bicycle?

3. A 60.0 g tennis ball starts to fall from a height of 16.0 ft. How much gravitational potential energy does the ball have at that height? (1 in = 2.54 cm)

4. What is the kinetic energy of a space probe with a mass of 5.00×10^5 hg traveling at a speed of 1.10×10^4 m/s?