Work - Worksheet 1

1. Calculate the work done on an object by a force of 5.7 N pushing an object 2.3 m.
2. Calculate the distance an object is moved when a force of 27.2 N creates 86.2 J of work.
3. Calculate the force needed to move a blocking dummy 15 m while doing a work of 47.5 J.
4. A box with a mass of 3.8 kg is given an acceleration of 4.8 $^{m}/\_{s^{2}}$. If the box moves a distance of 14.1 m how much work is done on the box?
5. A spring gives a ball bearing an acceleration of 2.75 $^{m}/\_{s^{2}}$ over a distance of 1.2m while doing a work of 4.5 J. What is the mass of the ball bearing?
6. A weight with a mass of 45 kg is lifted straight up 1.2 m. How much work is done on the weight?

Energy Conversion Worksheet 1



 h2

 h1

1. If h1 = 35 m and h2 = 15 m and the mass of the roller coaster is 425 kg, what is the initial Potential Energy of the roller coaster at the start?
2. What is the Kinetic Energy at the bottom of the hill?
3. What is the velocity of the roller coaster at the bottom of the hill?
4. What is the velocity of the roller coaster at the finish line?