

Forms of Energy – K.E., P_g.E., P_s.E

1. Find the kinetic energy of a 2 kg mass traveling at a speed 4 m/s?
2. If the kinetic energy of an object is 25 joules when its speed is 5 m/s. What is the mass of the object?
3. As an object is thrown vertically upward describe what happens to its kinetic energy. Why?
4. How much gravitational potential energy does a 10 kg box have 4 meters above the earth's surface?
5. A 70 kg student has 2,100 J of potential energy. How high above the earth's surface is she located?
6. When a spring is stretched .20 meters from its equilibrium position, it possesses a potential energy of 10 joules. What is the spring constant?
7. A 20 N weight is attached to a spring which stretches a distance of .5 meters. Determine the spring constant of this spring?
8. A toy spring is compressed a distance of .02 meters. If the spring constant of the spring is 340 N/m, how much energy is being stored in the spring?
9. A spring has a spring constant of 120 N/m. How much work was needed to stretch the spring a distance of .2 meters?