Energy, Work and Power

17. Calculate the kinetic energy of the rock in problem #8 if the rock rolls down the hill with a velocity of 8 m/s.

18. Calculate the kinetic energy of a truck that has a mass of 2900 kg and is moving at 55 m/s.

19. Find the mass of a car that is traveling at a velocity of 60 m/s North. The car has 5,040,000 J of kinetic energy.

20. How fast is a ball rolling if it contains 98 J of kinetic energy and has a mass of 4 kg?

WORKSHEET: POTENTIAL ENERGY PROBLEMS

Fill in the Blank:

1. Potential energy is the energy matter has as a result of its _____ or _____.

2. The more mass an object has the (more / less) potential energy it has.

3. The potential energy an object has due to its position is called _____ potential energy.

4. The formula for calculating gravitational potential energy is

   PE = _____.

5. The value of the g constant (the acceleration of all objects due to gravity) on earth is _____.