



4. a) What is the kinetic energy of a 500-kg automobile traveling at 20 m/s?

b) If the automobile suddenly brakes to a stop, what happens to its kinetic energy?

4. A 50-kg rock is resting at the edge of a cliff 12 meters high.

a) What potential energy does the rock possess?

b) If the rock falls to the ground, how fast will it be moving just before hitting the ground? (Hint: what is the kinetic energy of the rock at the bottom of the cliff?)