Kinetic Energy

Kinetic energy is the <u>energy due to an object's motion</u>.

As all objects have mass, any object with velocity has a kinetic energy of the product of ½, the mass, and the velocity squared:

Note: the kinetic energy is directly proportional to the mass and directly proportional to the velocity squared.

<u>ex</u>.
What is the kinetic energy of a 12 kg rock rolling at 3 m/s?

<u>ex</u>.
What is the speed of a 170 g baseball when it is has a kinetic energy of 110 J?