Energy Calculations Practice

$KE = \frac{mv^2}{2}$	$PE = mh\ x\ 9.8\ or$ $PE = weight\ x\ height$	$ME = KE + PE$

KE= kinetic energy m=mass v=velocity PE=potential energy h=height
ME=mechanical energy

1. Diya wanted to determine the minimum amount of energy needed to move an object. If the object has a mass of 30 kg and moves at 40 m/s, how much kinetic energy would the object have?

2. Santiago's book was on the edge of the table. If the book weighs 2 N and if 1 meter off of the floor, how much potential energy does the book have?

3. Find the potential energy of a 300 kg car that is at a stop light at sea level.

4. Find the kinetic energy of a 300 kg car that is traveling at 15 m/s towards Tyson's Corner.

5. According to the law of conservation of energy, energy cannot be created or destroyed. This means that it can only be transformed. The mechanical energy shows this. If a falling meteor has 1.3 kJ of kinetic energy and 100.79 kJ of potential energy, what is the mechanical energy?

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