

**Answer on Question #72201-Physics-Other**

A 8000-N car is traveling at 12m/s along a horizontal road when the brakes are applied. The car skids to a stop in 4.0 s. How much kinetic energy does the car lose in this time?

**Solution**

The weight of a car is

$$W = mg.$$

The kinetic energy does the car lose in this time is

$$K = \frac{mv^2}{2} = \frac{Wv^2}{2g}$$

$$K = \frac{(8000)12^2}{2(9.8)} = 59 \text{ kJ}.$$

**Answer: 59 kJ.**

**Answer provided by AssignmentExpert.com**