

Work-Energy Theorem

Recall, work is a change in or transfer of energy. The work done on an object is equal to its change in kinetic energy.

ex.

How much work is done when a 5700 kg truck speeds up from 50 km/hr to 75 km/hr?

ex.

What is the stopping force on a 30 kg object that started at 10 m/s and stopped in a distance of 15 m?

ex.

In what time and distance can a 1000 kg car stop if it is moving at 30 mph and it has a 3000 N braking force?

ex.

In what time and distance can the car in the previous question stop if it is moving at 60 mph with the same braking force?