

Name \_\_\_\_\_ Date \_\_\_\_\_

## WORK, ENERGY, AND POWER

An object of mass 20kg is released from a height of 10m above the ground level. Calculate the kinetic energy of the object just before it hits the ground

An object is acted upon by two forces 3N and 5N inclined at  $60^\circ$  to each other. If the object is moved through a distance of 6m by the resultant force, calculate the work done.

A body initially at rest is accelerated at the rate of  $0.2\text{m/s}^2$  for  $S$  seconds under a constant force of  $SON$ . Calculate the work done on the body

A car of mass 800kg initially at rest is accelerated at the rate of  $4\text{m/s}^2$ . Calculate the kinetic energy of the car after 5 seconds.

A man of weight 300N climbs to the top of a hill of height 20m. Calculate the work done by the man against the force of gravity