POWER

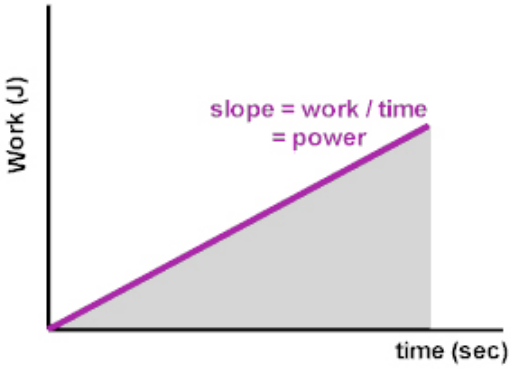
Power is the rate at which work is done. The formula used to calculate the power delivered or developed to complete a specified amount of work in a given time is

Power = work/time

Power is measured in **watts**. [watt = J/sec]

A second form of power is easily derived since velocity, $v = \Delta x/t$.

Power = work/time
Power = $(F\Delta x) / t$
Power = $F (\Delta x/t)$



Power = Fv

This expression can only be used when either the velocity is constant or when only an instantaneous value for power is being requested.

REMEMBER - force, F in the equation for work is the component of the force in the direction of the displacement, Δx. F and Δx are in the same direction.

http://firmandcorrect.files.wordpress.com/2009/01/one-big-fist.jpg