

Work and Energy Equations

Equation	Definition
Gravitational Constant	$g = 10 \frac{m}{s^2}$
Work	$W = Fd$
Kinetic Energy	$KE = \frac{1}{2}mv^2$
Gravitational Potential Energy	$PE_g = mgh$
Power	$P = \frac{W}{\Delta t} = \frac{\Delta E}{\Delta t}$
Conservation Of Mech. Energy	$KE_i + PE_i = KE_f + PE_f$
Mechanical Efficiency	$e = \frac{W_{out}}{W_{in}} \times 100\%$
Mechanical Advantage	$MA = \frac{F_{out}}{F_{in}} = \frac{d_{in}}{d_{out}}$