

Distance	gravity	formulas	formulas	Energy/Power
1 mile = 5,280 ft 1 ft. = 12 inches 1 in. = 2.54 cm	1 g = 32 ft/s <sup>2</sup>	$\Delta S = V_0t + 1/2at^2$	circle Area = $\pi r^2$ circumference = $2\pi r$	Work = F•d Power = Work/t
1 meter = 1,000 millimeters	1 g = 9.8 m/s <sup>2</sup>	$V_f = V_0 + at$	$F_{CM} = \frac{mv^2}{r}$	KE = 1/2 mv <sup>2</sup> PE = mgh H = f•ΔS
1 meter = 100 centimeters	1 hr = 3600 s 1 min = 60 s	$\Delta S = \frac{V_f^2 - V_0^2}{2a}$		Metric: Energy in Joules Power in watts Torque in N•m
1 Kilometer = 1,000 meters Mega = million	1.0 ft = 0.305 m Weight = mg 1.0 lb. = 4.445 N 1 slug = 14.59 kg	Use the motion formulas above to determine the trajectory formulas	W-H = ΔKE+ΔPE	British: Energy in ft•lbs Power in ft•lbs/s Torque in ft•lbs
Power Conversions		momentum	momentum	momentum
746 W = 1hp  550 ft•lbs/s = 1 hp		$m_1v_1 + m_2v_2 =$  $(m_1+m_2)V$  perfectly inelastic	Conservation of mo  $m_1v_1 + m_2v_2 =$  $m_1V_1 + m_2V_2$	Hybrid Conservation of Energy  $v_1 + V_1 = v_2 + V_2$