CONVERSION FORMULAS

Formulas Will Provide Approximate Values

MULTIPLY SI UNIT		BY CONV FACTOR		TO GET OR MULTIPLY USA NON-SI UNIT		BY CONV FACTOR		TO GET SI UNIT
LENGTH								
millimeter (mm)	X	0.03937	=	inch	X	25.4	=	mm
(1 inch = 25.4 mm exactly)								
Centimeter (cm) 10mm	X	0.3937	=	inch	X	2.54	=	cm
meter (m) 1000mm	X	3.28	=	foot	X	0.305	=	m
kilometer (km) 1000m	X	0.539	=	nautical mile	X	1.854	=	km
kilometer (km) 1000m	X	0.62	=	statute mile	X	1.61	=	km
AREA								
millimeter^2 (mm^2)	X	0.00155	=	inch^2	X	645	=	mm^2
centimeter^2 (cm^2)	X	0.155	=	inch^2	X	6.45	=	cm^2
meter^2 (m^2)	X	10.8	=	foot^2	X	0.0929	=	m^2
meter^2 (m^2)	X	1.2	=	yard^2	X	0.836	=	m^2
hectare (ha) 10,000 m^2	X	2.47	=	acre	X	0.405	=	ha
kilometer^2 (km^2)	X	0.39	=	mile^2	X	2.59	=	km^2
Volume								
centimeter^3 (cm^3)	X	0.061	=	inch^3	X	16.4	=	cm^3
liter (L) dm^3	X	61	=	inch^3	X	0.016	=	L
milliliter (mL) (1mL = 1 cm^3)	X	0.034	=	oz-liq	X	29.6	=	mL
liter (L) 1000 mL	X	1.06	=	quart	X	0.946	=	L
liter (L) dm^3	X	0.26	=	gallon	X	3.79	=	L
meter^3 (m^3)1000 L	X	1.3	=	yard^3	X	0.76	=	m^3
Mass								
gram (g)	X	0.035	=	ounce	X	28.3	=	g
kilogram (kg) 1000 g	X	2.2	=	pound	X	0.454	=	kg
metric ton (t) 1000 kg	X	1.1	=	ton (short)	X	0.907	=	t
FORCE (N = kg . m/s^2)								
newton (N)	X	0.225	=	pound	X	4.45	=	N
kilonewton (kN)	X	225	=	pound	X	0.00445	=	kN
TORQUE								
newton meter (N·m)	X	8.9	=	lb in.	X	0.113	=	N·m
newton meter (N·m)	X	0.74	=	lb ft.	X	1.36	=	N·m
PRESSURE (Pa = N/m^2)								
kilopascal (kPa)	X	4.0	=	in. H_2O	X	0.249	=	kPa
kilopascal (kPa)	X	.30	=	in. Hg	X	3.38	=	kPa
kilopascal (kPa)	X	0.145	=	psi	X	6.89	=	kPa
bar	X	14.5		psi	X	0.069	=	bar
Newton/mm^2	X	145.04		psi	X	0.0069	=	bar
STRESS (Pa = N/m^2)								
megapascal (MPa)	X	145	=	psi	X	0.00689	=	MPa
POWER (W = J/s)								
kilowatt (kW)	X	1.36		PS(cv)		0.736		kW
kilowatt (kW)	X	1.34		HP		0.746		kW
kilowatt (kW)	X	0.948		Btu/s		1.055		kW
watt (W)	X	0.74		ft lb/s		1.36		W
ENERGY (J = N*m)								
kilojoule (kJ)	X	0.948	=	Btu	X	1.055	=	kJ
joule (J)	X	0.239	=	calorie	X	4.19	=	J
VELOCITY AND ACCELERATION								
meter per sec^2 (m/s^2)	X	3.28	=	ft/s^2	X	0.305	=	m/s^2
meter per sec (m/s)	X	3.28	=	ft/s	X	0.305	=	m/s
kilometer per hour (km/h)	X	0.62	=	mph	X	1.61	=	km/h
TEMPERATURE								
$^\circ$C = ($^\circ$F -32) ÷ 1.8						$^\circ$F = ($^\circ$C x 1.8) + 32		