

### Explanation of Common Metric Prefixes

<b>PREFIX</b>	<b>SYMBOL</b>	<b>NUMBER</b>	<b>SCIENTIFIC NOTATION</b>	<b>SHORT SCALE</b>
tera	T	1,000,000,000,000	$10^{12}$	trillion
giga	G	1,000,000,000	$10^9$	billion
mega	M	1,000,000	$10^6$	million
kilo	k	1,000	$10^3$	thousand
hecto	h	100	$10^2$	hundred
deca	da	10	$10^1$	ten
		1	$10^0$	one
deci	d	0.1	$10^{-1}$	tenth
centi	c	0.01	$10^{-2}$	hundredth
milli	m	0.001	$10^{-3}$	thousandth
micro	$\mu$	0.000001	$10^{-6}$	millionth
nano	n	0.000000001	$10^{-9}$	billionth

### Commonly Used Distance Units & Conversions

1 inch (in)	2.5445 centimeters
1 foot (ft)	12 inches 0.3048 meters
1 mile (mi)	5280 feet 1.61 kilometers
1 meter (m)	39.4 inches 3.2808 feet 100 centimeters
1 kilometer (km)	0.61 miles 100,000 centimeters 1,000 meters
1 astronomical unit (AU)	92,955,807 miles 149,597,871 kilometers

### Useful Formulas & Constants

density	mass / volume
distance	velocity • time
circumference of a circle	$\pi \cdot d$ or $2 \cdot \pi \cdot r$
area of a circle	$\pi \cdot r^2$
wavelength ( $\lambda$ )	velocity / frequency
pi ( $\pi$ )	3.141592
speed of light in a vacuum ( $c$ )	299,792,458 m/s
Universal Gravitational constant ( $G$ )	$6.67 \cdot 10^{-11} \text{ m}^3/\text{kg} \cdot \text{s}^2$

### Simple Trigonometric Relations

<b>sine</b> $\sin\theta = A/C$ ("opposite over hypotenuse")	
<b>cosine</b> $\cos\theta = B/C$ ("adjacent over hypotenuse")	
<b>tangent</b> $\tan\theta = A/B$ ("opposite over adjacent")	