

# **BASIC PREFIXES AND UNITS**

THINGS THAT YOU HAVE TO KNOW THAT  
YOU KNOW

Alpha	A	α	A
Beta	B	β	B
Gamma	Γ	γ	G
Delta	Δ	δ	D
Epsilon	E	ε	E
Zeta	Z	ζ	Z
Eta	H	η	H
Theta	Θ	θ	TH
Iota	I	ι	I
Kappa	K	κ	K
Lambda	Λ	λ	L
Mu	M	μ	M
Nu	N	ν	N
Xi	Ξ	ξ	X
Omicron	O	ο	O
Pi	Π	π	P
Rho	Ρ	ρ	R
Sigma	Σ	σ	S
Tau	T	τ	T
Upsilon	Υ	υ	U
Phi	Φ	φ	PH
Chi	Χ	χ	CH
Psi	Ψ	ψ	PS
Omega	Ω	ω	O

# GREEK ALPHABET



Blocks available (at time of lecture) from  
<http://www.magellanstoyshop.com/shop/item.asp?itemid=301>

# PREFIXES

Multiple	Prefix	Symbol	Common Name
$(10^{100})^{100}$	anton	A	antonplex
$(10^{10})^{100}$	-	-	googolplex
$10^{100}$	-	-	googol
$10^{24}$	yotta	Y	heptillion
$10^{21}$	zetta	Z	hexillion
$10^{18}$	exa	E	quintillion
$10^{15}$	peta	P	quadrillion
$10^{12}$	tera	T	trillion
$10^9$	giga	G	billion
$10^6$	mega	M	million
$10^3$	kilo	k	thousand
$10^2$	hecto	h	hundred
$10^1$	deca	da	ten
$10^{-1}$	deci	d	tenth
$10^{-2}$	centi	c	hundredth
$10^{-3}$	milli	m	thousandth
$10^{-6}$	micro	$\mu$	millionth
$10^{-9}$	nano	n	billionth
$10^{-12}$	pico	p	trillionth
$10^{-15}$	femto	f	quadrillionth
$10^{-18}$	atto	a	quintillionth
$10^{-21}$	zepto	z	hexillionth
$10^{-24}$	yocto	y	heptillionth

# PREFIXES YOU MUST KNOW

Power of 10	Exponent	Prefix	Symbol	Common Name
9	$10^9$	giga	G	billion
6	$10^6$	mega	M	million
3	$10^3$	kilo	k	thousand
2	$10^2$	hecto	h	hundred
1	$10^1$	deca	da	ten
-1	$10^{-1}$	deci	d	tenth
-2	$10^{-2}$	centi	c	hundredth
-3	$10^{-3}$	milli	m	thousandth
-6	$10^{-6}$	micro	$\mu$	millionth
-9	$10^{-9}$	nano	n	billionth



WEIGHTS  
AND  
MEASURES  
OFFICE

File:Weights and Measures office.jpg

	Metric		British Imperial
	mks	cgs	
length			
mass			
time			
temperature			

# LENGTH

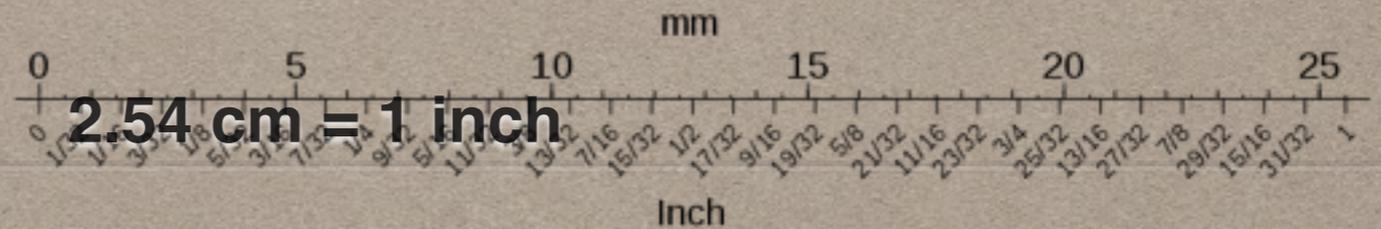


# ONE "EARTH"

*10,000,000 m*



	Metric		British Imperial
	MKS	CGS	
<b>length</b>	meter (m)	centimeter (cm)	foot or inch
<b>mass</b>			
<b>time</b>			
<b>temperature</b>			



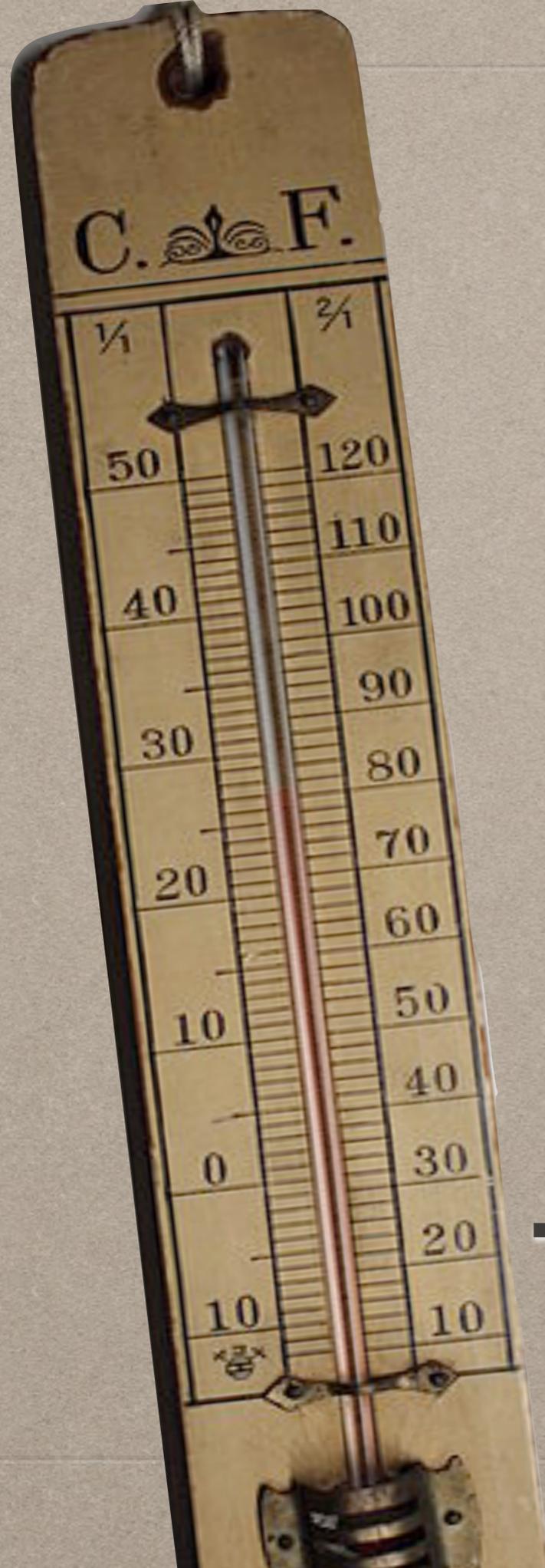
**MASS**

	Metric		British Imperial
	MKS	CGS	
<b>length</b>	meter (m)	centimeter (cm)	foot or inch
<b>mass</b>	kilogram (kg)	gram (g)	slug
<b>time</b>			
<b>temperature</b>			

**TIME**



	Metric		British Imperial
	MKS	CGS	
<b>length</b>	meter (m)	centimeter (cm)	foot or inch
<b>mass</b>	kilogram (kg)	gram (g)	slug
<b>time</b>	seconds (s)	seconds (s)	seconds
<b>temperature</b>			



# TEMPERATURE

	Metric		British Imperial
	MKS	CGS	
<b>length</b>	meter (m)	centimeter (cm)	foot or inch
<b>mass</b>	kilogram (kg)	gram (g)	slug
<b>time</b>	seconds (s)	seconds (s)	seconds
<b>temperature</b>	Kelvin (K) Degrees Celsius (°C)		Fahrenheit (°F)

°C - A single temperature  
 C° - A change in temperature

