

BASIC PREFIXES AND UNITS

THINGS THAT YOU HAVE TO KNOW THAT YOU KNOW

1

| | | | |
|---------|---|---|----|
| 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 | P | ρ | R |
| Sigma | Σ | σ | S |
| Tau | T | τ | T |
| Upsilon | Υ | υ | U |
| Phi | Φ | φ | PH |
| Chi | X | χ | CH |
| Psi | Ψ | ψ | PS |
| Omega | Ω | ω | O |

GREEK ALPHABET



2

| Multiple | Prefix | Symbol | Common Name |
|------------|--------|--------|---------------|
| 10^{15} | antoni | A | antonplex |
| 10^{16} | - | - | googoplex |
| 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 | μ | 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

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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 | μ | millionth |
| -9 | 10^{-9} | nano | n | billionth |

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| | Metric | | British Imperial |
|-------------|--------|-----|------------------|
| | mks | cgs | |
| length | | | |
| mass | | | |
| time | | | |
| temperature | | | |

5



6

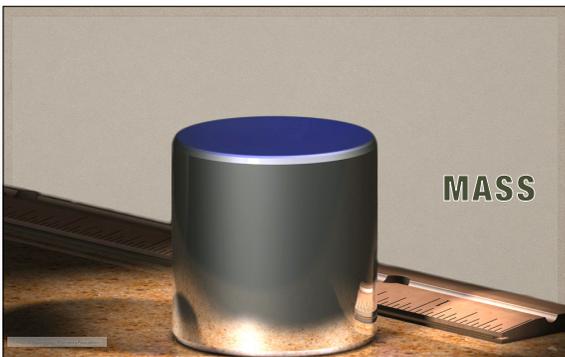


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| | Metric | | British Imperial |
|--------------------|-----------|-----------------|------------------|
| | MKS | CGS | |
| length | meter (m) | centimeter (cm) | foot or inch |
| mass | | | |
| time | | | |
| temperature | | | |

0 5 10 15 20 25
mm
Inch

8



9

| | Metric | | British Imperial |
|--------------------|---------------|-----------------|------------------|
| | MKS | CGS | |
| length | meter (m) | centimeter (cm) | foot or inch |
| mass | kilogram (kg) | gram (g) | slug |
| time | | | |
| temperature | | | |

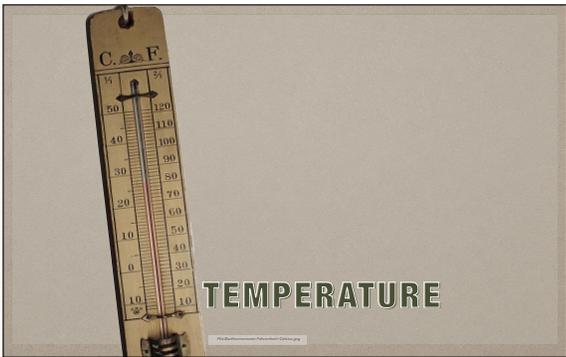
10



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

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13

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

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

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THE STARBUCKS SPLASH STICK

- Simple motion often caused me to lose some coffee, or leave drips on (all) of my shirts.
- This closes the opening in the lid, keeps the coffee hot a little bit longer, and stops the splash.
- With the splash stick, I can walk faster and with more confidence. My shirts are not stained.
- I don't know if they are made of recycled materials, or the cost it adds to my coffee purchase.



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ENGINEERING BOOT CAMP
INTRODUCTIONS

Introduce to the class to your favorite invention,
process, or technology.

State the problem that existed.
Explain how the problem was solved.
Tell us how that CHANGED YOUR LIFE.
Can it be better?

PHOTO / DIAGRAM
SHORT PARAGRAPH
