

Within the U.S. System	
Linear	Measure
12 inches (in) =	1 foot (ft)
3 feet (ft) =	1 yard (yd)
36 inches =	1 yard
5280 feet	1 mile (mi)
Weight	Measure
16 ounces (oz) =	1 pound (lb)
2000 pounds =	1 ton
Capacity	Measure
8 fl oz =	1 cup ( c )
2 cups =	1 pint (pt)
2 pints =	1 quart (qt)
4 quarts =	1 gallon (gal)
Energy	Measure
778 ft-lb ≈	1 BTU
<b>Unit Fraction:</b>	
Units going to	
Units coming from	

**Misc. Formulas**

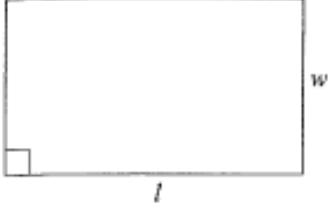
$$C = \frac{5}{9}(F - 32)$$

$$F = \frac{9}{5}C + 32 \text{ or } F = 1.8C + 32$$

$$\text{Energy (ft-lb)} = \text{Distance (ft)} \cdot \text{Weight (lb)}$$

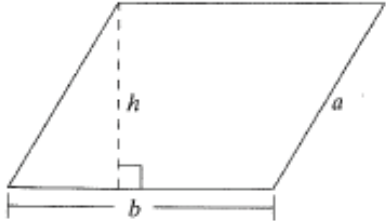
Between U.S. and Metric Systems	
Metric	U.S. System
Linear	Measure
1m ≈	1.09yd
1m ≈	3.28ft
1km ≈	0.62mi
2.54cm =	1in
0.30m ≈	1ft
1.61km ≈	1mi
Capacity	Measure
1L ≈	1.06qt
1L ≈	0.26gal
3.79L ≈	1gal
0.95L ≈	1qt
29.57ml ≈	1fl oz
Weight	Measure
1kg ≈	2.20lb
1g ≈	0.04oz
0.45kg ≈	1lb
28.35g ≈	1oz

**Rectangle**  
Perimeter is also the sum of sides




Perimeter:  $P = 2l + 2w$   
Area:  $A = lw$

**Parallelogram**  
Perimeter is also the sum of sides



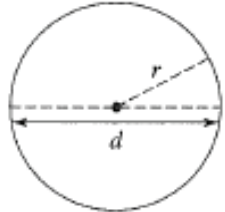
Perimeter:  $P = 2a + 2b$   
Area:  $A = bh$

**Square**  
Perimeter is also the sum of sides



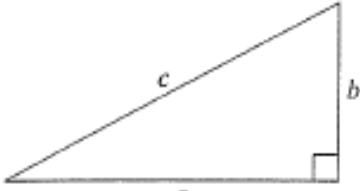
Perimeter:  $P = 4s$   
Area:  $A = s^2$

**Circle**



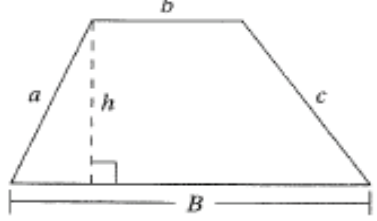
Circumference:  $C = \pi d$   
 $C = 2\pi r$   
Area:  $A = \pi r^2$

**Pythagorean Theorem (for right triangles)**

$$a^2 + b^2 = c^2$$


$a = \sqrt{c^2 - b^2}$ ;  $b = \sqrt{c^2 - a^2}$   
 $c = \sqrt{a^2 + b^2}$

**Trapezoid**  
Perimeter is also the sum of sides

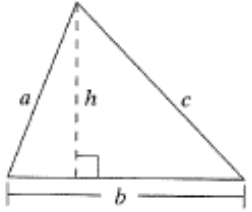


$P = a + B + c + b$   
 $A = h \left( \frac{B+b}{2} \right)$

**Within the Metric System**

Value	Prefix	Linear	Weight/Mass	Capacity
1000	Kilo	Kilometer (km)	Kilogram (Kg)	Kiloliter (kl)
100	Hecto	Hectometer (hm)	Hectogram (hg)	Hectoliter (hl)
10	Deka	Dekameter (dam)	Dekagram (dag)	Dekaliter (dal)
<b>1</b>		<b>Meter (m)</b>	<b>Gram (g)</b>	<b>Liter (L)</b>
1/10	Deci	Decimeter (dm)	Decigram (dg)	Deciliter (dl)
1/100	Centi	Centimeter (cm)	Centigram (cg)	Centiliter (cl)
1/1000	Milli	Millimeter (mm)	Milligram (mg)	Milliliter (ml)

**Triangle**



Perimeter:  $P = a + b + c$   
Area:  $\frac{1}{2}bh$  or  $\frac{bh}{2}$