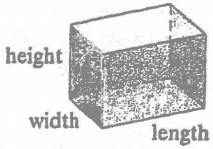
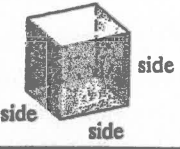
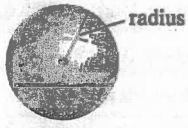
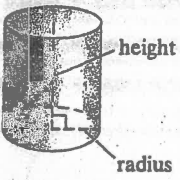
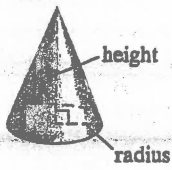
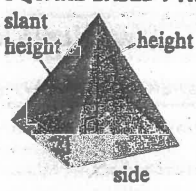


Volume and Surface Area Formulas of Common Solids	
Solid	Formulas
<b>RECTANGULAR SOLID</b> 	$V = l \cdot w \cdot h$ $SA = 2lh + 2hw + 2lw$
<b>CUBE</b> 	
<b>SPHERE</b> 	$V = \frac{4}{3}\pi r^3$ $SA = 4\pi r^2$ where $r$ = radius
<b>CIRCULAR CYLINDER</b> 	$V = \pi r^2 h$ $SA = 2\pi r h + 2\pi r^2$ where $h$ = height, $r$ = radius
<b>CONE</b> 	$V = \frac{1}{3}\pi r^2 h$ $SA = \pi r \sqrt{r^2 + h^2} + \pi r^2$ where $h$ = height, $r$ = radius
<b>SQUARE-BASED PYRAMID</b> 	$V = \frac{1}{3}s^2 h$ $SA = B + \frac{1}{2}pl$ where $B$ = area of base, $p$ = perimeter of base, $h$ = height, $s$ = side, $l$ = slant height

### Converting Celsius to Fahrenheit

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

### Converting Fahrenheit to Celsius

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

### U.S. Units of Length

$$12 \text{ inches (in.)} = 1 \text{ foot (ft)}$$

$$3 \text{ feet} = 1 \text{ yard}$$

$$36 \text{ inches} = 1 \text{ yard}$$

$$5280 \text{ feet} = 1 \text{ mile (mi)}$$



### Metric Units of Length

$$1 \text{ kilometer (km)} = 1000 \text{ meters (m)}$$

$$1 \text{ hectometer (hm)} = 100 \text{ m}$$

$$1 \text{ dekameter (dam)} = 10 \text{ m}$$

$$1 \text{ meter (m)} = 1 \text{ m}$$

$$1 \text{ decimeter (dm)} = 1/10 \text{ m or } 0.1 \text{ m}$$

$$1 \text{ centimeter (cm)} = 1/100 \text{ m or } 0.01 \text{ m}$$

$$1 \text{ millimeter (mm)} = 1/1000 \text{ m or } 0.001 \text{ m}$$

### U.S. Units of Weight

$$16 \text{ ounces (oz)} = 1 \text{ pound (lb)}$$

$$2000 \text{ pounds} = 1 \text{ ton}$$

### Metric Units of Mass

$$1 \text{ kilogram (kg)} = 1000 \text{ grams (g)}$$

$$1 \text{ hectogram (hg)} = 100 \text{ g}$$

$$1 \text{ dekagram (dag)} = 10 \text{ g}$$

$$1 \text{ gram (g)} = 1 \text{ g}$$

$$1 \text{ decigram (dg)} = 1/10 \text{ g or } 0.1 \text{ g}$$

$$1 \text{ centigram (cg)} = 1/100 \text{ g or } 0.01 \text{ g}$$

$$1 \text{ milligram (mg)} = 1/1000 \text{ g or } 0.001 \text{ g}$$

### U.S. Units of Capacity

$$8 \text{ fluid ounces (fl oz)} = 1 \text{ cup (c)}$$

$$2 \text{ cups} = 1 \text{ pint (pt)}$$

$$2 \text{ pints} = 1 \text{ quart (qt)}$$

$$4 \text{ quarts} = 1 \text{ gallon (gal)}$$

### Metric Units of Capacity

$$1 \text{ kiloliter (kl)} = 1000 \text{ liters (L)}$$

$$1 \text{ hectoliter (hl)} = 100 \text{ L}$$

$$1 \text{ dekaliter (dal)} = 10 \text{ L}$$

$$1 \text{ liter (L)} = 1 \text{ L}$$

$$1 \text{ deciliter (dl)} = 1/10 \text{ L or } 0.1 \text{ L}$$

$$1 \text{ centiliter (cl)} = 1/100 \text{ L or } 0.01 \text{ L}$$

$$1 \text{ milliliter (ml)} = 1/1000 \text{ L or } 0.001 \text{ L}$$