



**BROWARD COLLEGE  
NURSING DEPARTMENT**

**DRUG CALCULATIONS & CONVERSIONS**

<u>Metric System</u>	<u>Apothecary &amp; Metric System</u>
1 mL..... 1 cc 1,000 mL..... 1 L 1,000 mg..... 1 g 1,000 mcg..... 1 mg 1,000 g..... 1 kg	gr 1 ..... 60 mg gr 15 ..... 1 g oz 1..... 30 mL
<u>Metric &amp; Household</u>	<u>Apothecary</u>
1 kg..... 2.2 lbs 30 mL..... 1 oz 5 mL..... 1 tsp 15 mL..... 1 tbsp 2.54 cm..... 1 inch	cup 1 ..... oz 8 pt 1..... oz 16 qt 1..... oz 32
	<u>Household</u>
	1 lb (#)..... 16 oz
<u>Rounding Rules</u>	<u>IV Formulas (Required)</u>
<ol style="list-style-type: none"> <li>Round at the completion of each step of the problem.</li> <li>Round the weight of patient prior to working the problem.</li> <li>Round everything to the <i>nearest</i> tenth place except the following:               <ol style="list-style-type: none"> <li><b>mL</b>: if less than one mL round to the <i>nearest</i> hundredths</li> <li><b>mg</b>: if less than one mg. round to the <i>nearest</i> thousandths</li> <li><b>gr</b>: if less than one gr. round to the <i>nearest</i> thousandths</li> <li><b>gtts</b>: round to the <i>nearest whole</i> number <b>units</b>: round to the <i>nearest whole</i> number</li> <li><b>capsules</b>: round to the <i>nearest whole</i> number</li> <li><b>Tablets</b> that are scored may be rounded to the <i>nearest</i> ½ tab [⊖] or ¼ tab if scored twice [⊕].</li> </ol> </li> </ol>	<p align="center"><b><u>FLOW BY GRAVITY</u></b></p> <ol style="list-style-type: none"> <li>If greater than one hour, always calculate the hourly rate first, then           <math display="block">\frac{\text{mL/hr} \times \text{gtts/mL}}{60} = \text{gtts/min}</math> </li> <li>If infusion is ordered to run for less than one hour, then           <math display="block">\frac{\text{mL} \times \text{gtts/mL}}{\text{minutes}} = \text{gtts/min}</math> </li> </ol> <hr/> <p align="center"><b><u>FLOW BY INFUSION DEVICE</u></b></p> <ol style="list-style-type: none"> <li>If an infusion is ordered to run over a number of hours and the hourly rate is needed for an infusion pump or to plug into formula number 1, then           <math display="block">\frac{\text{Total mL ordered}}{\text{Total hours}} = \text{mL/hr}</math> </li> <li>If an infusion is ordered to run for less than 60 minutes and an hourly rate is needed, then           <math display="block">\frac{\text{Volume}}{\text{Minutes}} \times 60 = \text{mL/hr}</math> </li> </ol>
<u>TEMPERATURE: FAHRENHEIT - CELSIUS</u>	
$F^{\circ} = 1.8 C^{\circ} + 32$ $C^{\circ} = \frac{F^{\circ} - 32}{1.8}$	98.6° F = 37° C 102.2° F = 39° C