

Medical Math Formulas

Finding ordered dose:

$$x = \frac{(\text{volume on hand}) (\text{ordered dose})}{(\text{concentration on hand})}$$

Finding units per kilogram

$$x = \frac{(\text{ordered dose}) (\text{weight [kg]})}{1 \text{ kg}}$$

Finding the concentration of a solution

$$x = \frac{\text{solute (grams or milligrams of drug)}}{\text{solvent (liters or milliliters of volume)}}$$

Calculating an IV drip

$$x = \frac{\text{IV bag volume}}{\text{Amount of drug in bag}} \times \frac{\text{unit ordered}}{1 \text{ min.}} \times \frac{\text{administration set (gtt)}}{1 \text{ mL}}$$

Milliliters per hour to drops per minute

$$x = \frac{\text{order amount (mL)}}{\text{order time (min.)}} \times \frac{\text{administration set (gtt)}}{1 \text{ mL}}$$