**Show all your steps on a separate piece of paper**

Electrical Formulas:

1. V = RI , for R
2. $P=\frac{V^{2}}{R}$ , for V
3. K = $\frac{I×E}{1000}$ , for E
4. $A=\frac{HP×746}{E×Eff}$ , for HP

Where A is Amps, HP is Horsepower,

E is energy, Eff is efficiency

1. $HP=\frac{I×E×Eff}{746}$ , for I

Where HP is hoursepower, I is Amps,

E is energy and Eff is efficiency

Medical Formulas

1. Finding ordered dose: $x=\frac{V×D}{C}$ , for D

Where V is the volume on hand,

D is the ordered dose,

and C is the concentration on hand

1. Finding the concentration of a solution:

$x=\frac{solute}{solvent}$ , for solvent

1. Finding units per Kilogram:

$x=\frac{ordered dose×weight(kg)}{1kg}$

solve for ordered dose

Mechanical Formulas

1. $Torque=\frac{HP×5250}{RPM}$ , for HP

Where HP is horsepower and RPM is revolutions per minute

1. $HP=\frac{CFM×Pressure}{33000×Eff}$ , for Pressure

Where CFM is cubic feet per minute, pressure is lb/sq.ft, and Eff is efficiency

 Automotive Formulas

1. Piston speed

$Piston speed =\frac{stroke ×rpm}{6}$ , for rpm

1. $HP=\frac{mep×displacement×rpm}{792000}$ ,for mep

Measurement Formulas

1. $V=lwh$ , for w
2. $A=\frac{1}{2}bh$ , for h
3. $V=\frac{πr^{2}}{3}$ , for r
4. $V=\frac{2}{3}πr^{3}$ , for r
5. $P=2(l+w)$ , for w
6. $A=πr^{2}+2πrh$ , for h