Friday, September 07, 2018 10:33 AM

3. Convert 52 miles to meters:

$52\ mi * \frac{1609\ m}{1\ mi} = 83,700\ m$

4. 4500 g to kg:

$4500\ g * \frac{1\ kg}{10^3\ g} = 4.5\ kg$

4.50 kg

5. Convert 17 meters to centimeters:

$17\ m * \frac{1\ cm}{10^{-2}\ m} = 1700\ cm$

$1.70 \times 10^3\ cm$

6. 5000 mm to m:

$5000\ mm * \frac{10^{-3}\ m}{1\ mm} = 5\ m$

5.00 m

7. Convert 12 centimeters to meters:

$12\ cm * \frac{10^{-2}\ m}{1\ cm} = 0.12\ m$

0.120 m

8. 32 ML (Megaliter) to L:

$32\ ML * \frac{10^6\ L}{1\ ML} =$

$3.2 \times 10^7\ L$

$3.20 \times 10^7\ L$

9. Convert 20 meters/second to miles/hour:

$\frac{20\ m}{s} * \frac{1\ mile}{1609\ m} * \frac{3600\ s}{1\ hr} = 44.7\ mi/hr$

Equation Manipulation

1) Solve for d: $v_{ave} = \frac{d}{t}$

$d = v_{ave} t$

2) Solve for m: $a_1 = \frac{F_1}{m}$

$m = \frac{F_1}{a_1}$

3) Solve for v_f: $v_{ave} = \frac{(v_f - v_i)}{2}$

$v_f = 2v_{av} + v_i$

4) Solve for a: $d = vt + \frac{1}{2}at^2$

$a = \frac{2(d - vt)}{t^2}$

5) Solve for t: $v_f = v_i + at$

$t = \frac{v_f - v_i}{a}$

6) Solve for I: $W = I^2 Rt$

$I = \sqrt{\frac{W}{Rt}}$

7) Solve for m_1: $F_g = \frac{Gm_1m_2}{r^2}$

$M_1 = \frac{F_g r^2}{G m_2}$

8) Solve for v: $d = vt + \frac{1}{2}at^2$

$v = \frac{d - \frac{1}{2}at^2}{t}$