

**WORKING WITH DECIMALS** – *Be sure to round properly.*

DIRECTIONS: Perform the calculations first following the rules without a calculator then check your work with a calculator.

1.  $12.45 + 34.789 + 309.76 = \mathbf{357.00}$

$$\begin{array}{r} 12.45 \\ 34.789 \\ 309.76 \\ \hline 356.999 \end{array}$$

$$\boxed{357.00}$$

2.  $785.01 + 485.9 + 0.3749 = \mathbf{1271.3}$

$$\begin{array}{r} 785.01 \\ 485.9 \\ 0.3749 \\ \hline 1271.2849 \end{array}$$

$$\boxed{1271.3}$$

3.  $32.76 - 0.912 = \mathbf{31.85}$

$$\begin{array}{r} 32.76 \\ - 0.912 \\ \hline 31.848 \end{array}$$

$$\boxed{31.85}$$

4.  $3.693 - 0.348 = \mathbf{3.345}$

$$\begin{array}{r} 3.693 \\ - 0.348 \\ \hline 3.345 \end{array}$$

$$3.345$$

5.  $77.9 \times 0.0038 = \mathbf{0.30}$

$$\begin{array}{r} 77.9 \\ \times 0.0038 \\ \hline 6232 \\ 23370 \\ \hline 0.29602 \end{array}$$

$$0.30$$

6.  $963.98 \times 0.12036 = 116.02$

$$\begin{array}{r}
 \phantom{00000}96398 \\
 \phantom{00000}12036 \\
 \hline
 \phantom{00000}578388 \\
 \phantom{0000}2891940 \\
 \phantom{000000}00 \\
 \phantom{000}192796000 \\
 \phantom{000}96398000 \\
 \hline
 116.0246328
 \end{array}$$

1 1 6 . 0 2

7.  $0.9276 \times 33.33 = 30.92$

$$\begin{array}{r}
 \phantom{000000}9276 \\
 \phantom{000000}3333 \\
 \hline
 \phantom{000000}27828 \\
 \phantom{00000}278280 \\
 \phantom{0000}2782800 \\
 \phantom{000}27828000 \\
 \hline
 30.916908
 \end{array}$$

3 0 . 9 2

8.  $0.793 / 7.3 = .11$

$$\begin{array}{r}
 7.3 \overline{)0.793} \\
 \hline
 73 \overline{)7.93} \\
 \phantom{0}0.108 \\
 73 \overline{)7.93} \\
 \phantom{00}73 \\
 \phantom{000}630 \\
 \phantom{0000}584 \\
 \hline
 \phantom{00000}
 \end{array}$$

9.  $0.091 / 0.1538 = 0.59$

$$\begin{array}{r}
 1538 \overline{)910} \\
 \phantom{000}0.591 \\
 1538 \overline{)910.00} \\
 \phantom{000}769.0 \\
 \phantom{0000}14100 \\
 \phantom{00000}13842 \\
 \phantom{000000}2580 \\
 \phantom{0000000}1538 \\
 \hline
 \phantom{00000000}
 \end{array}$$

10.  $0.357 / 2.4 = 0.15$

24	3.57
	0.14875
24	3.570
	24
	117
	96
	210
	192
	180
	168
	120
	120

**ORDER OF OPERATION** – Be sure to round properly

1.  $CaO_2 = [(Hb \times 1.34) SaO_2] + (PaO_2 \times 0.003 \text{ vols\% / torr})$

Hb = 15.0 g%

SaO<sub>2</sub> = 97.5%

PaO<sub>2</sub> = 100 torr **19.9 vols%**

$$CaO_2 = [(Hb \times 1.34) \times SaO_2] + (PaO_2 \times 0.003)$$

$$CaO_2 = [(15.0 \times 1.34) \times .975] + (100 \times .003)$$

$$CaO_2 = [20.0 \times .975] + 0.3$$

$$CaO_2 = 19.6 + 0.3 = 19.9$$

2.  $\dot{Q}_t = \frac{\dot{V}O_2}{(CaO_2 - C\bar{V}O_2) \times 10}$

$\dot{V}O_2 = 250. \text{ ml/min}$      $CaO_2 = 19.1 \text{ vols\%}$      $C\bar{V}O_2 = 14.1 \text{ vols\%}$

$$\dot{Q}_t = \frac{\dot{V}O_2}{(CaO_2 - C\bar{V}O_2) \times 10} = \frac{250. \text{ mL/min}}{(19.1 \text{ vols\%} - 14.1 \text{ vols\%}) \times 10} = \frac{250. \text{ mL/min}}{5 \text{ mL/100 mL} \times 10} = 5 \text{ L/min}$$

3. Ideal Body Weight (female) =  $105 + [5(\text{ht in inches} - 60)]$

Height (ht.) = 65 inches **130 pounds**

$$IBW_{FEMALE} = 105 + [5 \times (\text{Height} - 60)] = 105 + [5 \times (65 - 60)] = 105 + [5 \times 5] = 105 + 25 = 130$$