4.)

$$\begin{array}{r} 8400.00 \\ \times 0.15 \\ \hline 1260.00 \end{array}$$

$$\begin{array}{r} 7140.00 \\ + \ 392.70 \\ \hline \$7532.70 \end{array}$$

5.5%.

$$\begin{array}{r} 8400.00 \\ - \ 1260.00 \\ \hline 7140.00 \end{array}$$

$$\begin{array}{r} \times \ 0.055 \\ \hline \$392.70 \text{ tax} \end{array}$$

5.)

140

$\frac{+75}{100}$ $\frac{60-n}{80} = \frac{75}{100}$

$0.10 \times 800 = 80$

$0.75 \times 800 = 600$

change 65?

$600 - 520 = 80$

$80 + 60 =$ 140

$\frac{800-80}{80} =$

$\frac{720}{80}$

9

2-8 Literal Equation Dimensional Analysis

$4m - 3n = 8$ for $\boxed{m}$

$+3n \quad +3n$

$\frac{4}{4}m = \frac{3n+8}{4}$ $m =$

$m = \frac{3n+8}{4}$

$m = \frac{3n}{4} + 2$

1A.) $15 = 3n + 6p$ for n

$3n + 6p = 15$

$-6p \quad -6p$

$\frac{3n}{3} = \frac{-6p + 15}{3}$

$n = -2p + 5$

13) $\frac{5}{1} \cdot \frac{k-2}{5} = 11j \cdot 5$ for k

$k - 2 = 55j$

$+2 \quad +2$

$k = 55j + 2$

$11j + 11j + 11j + 11j + 11j$

$55j$

1c.) $\frac{28}{r+4} = \frac{t(r+4)}{r+4}$ for t

$\frac{28}{r+4} = t$

D.) $a(g-8)=23$ for g

$ag-8a=23$

$+8a \quad +8a$

$\frac{ag}{a}=\frac{8a+23}{a}$

$g=\frac{8a+23}{a}=\frac{8a}{a}+\frac{23}{a}$

$g=\frac{23}{a}+8$

Ex: 2) $3x - 2y = xz + 5$ for x

$+2y \qquad +2y$

$3x = xz + 5 + 2y$

$-xz \quad -xz$

$3x - xz = 2y + 5$

$x\left(\frac{3-z}{3-z}\right) = \frac{2y+5}{3-z}$

$x = \frac{2y+5}{3-z}$

2A) $d + 5c = 3d - 1$ for d

$-d \qquad -d$

$5c = 2d - 1$

$+1 \quad +1$

$\frac{5c+1}{2} = \frac{2}{2}d$

$\boxed{\frac{5c+1}{2} = d}$

2B.) $6q - 18 = qr + t$ for q.

$+18 \qquad +18$

$6q = qr + t + 18$

$-qr \qquad -qr$

$6q - qr = t + 18$

$\frac{q(6-r)}{6-r} = \frac{t+18}{6-r}$

$$q = \frac{t+18}{6-r}$$

3. $V = \ell w h$ for w

a) $\frac{V}{\ell h} = \frac{\ell w h}{\ell h}$

$\frac{V}{\ell h} = w$

b) $\frac{79.04}{5.2(4)} = \frac{79.04}{20.8} = 3.8\text{ cm}$ width

8.) $u = vw + 2$ for v

$-2 \qquad -2$

$\frac{u-2}{w} = \frac{vw}{w}$

$\frac{u-2}{w} = v$

10.) $fg - 9h = 10j$ for g

$+9h \quad +9h$

$\frac{fg}{f} = \frac{9h + 10j}{f}$

$g = \frac{9h + 10j}{f}$

12.) $r = \frac{2}{3}t$ for t

$-v \quad\quad +v \quad -v$

$r - v = \frac{2}{3}t \quad (\cdot \frac{3}{2})$

$\frac{3}{2}(r - v) = t$

14.) $\frac{11}{1} \cdot \frac{10ac - x}{11} = -3 \cdot \frac{11}{1}$ for a

$10ac - x = -33$

$+x \quad +x$

$\frac{10ac}{10c} = \frac{-33 + x}{10c}$

$a = \frac{-33 + x}{10c}$

16.) $B = 703 \cdot \frac{w}{h^2}$ for w

$\frac{B}{703} = \frac{703 \cdot \frac{w}{h^2}}{703}$

$h^2 \cdot \frac{B}{703} = \frac{w}{h^2} \cdot h^2$

a.) $\frac{Bh^2}{703} = w$

64 in tall $B = 21.45$

b.) $\frac{21.45(64^2)}{703}$

$\frac{87859.2}{703} = 124.98 \approx 125$ lbs