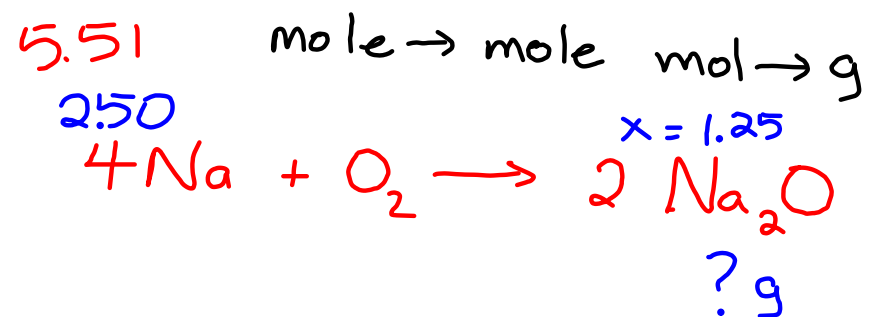




$$\frac{2.50}{4} = \frac{x}{2}$$

$$(2.50)(2) = 4(x)$$

$$\frac{5}{4} = \frac{4(x)}{4}$$

$$1.25\text{mol} = x$$

$$\text{Na } 23 \times 2 = 46$$

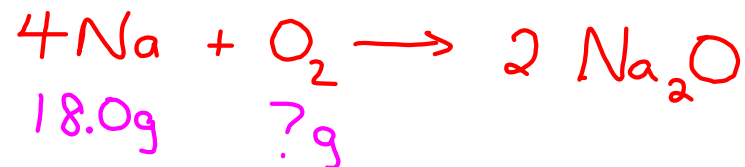
$$\text{O } 16 \times 1 = 16$$

$$62\text{g} = 1\text{mol}$$

$$\frac{1.25\text{mol} \times 62\text{g}}{1\text{mol}} = 77.5\text{g}$$

g → mol mol → g

$$\cdot 7826086 \text{ mol} \quad \cdot 19565215 \text{ mol}$$



Na = 23

$$\frac{18.0 \text{ g} \times 1 \text{ mol}}{23 \text{ g}} = .7826086 \text{ mol}$$

$$\frac{.7826086 \text{ mol}}{4} = \frac{x}{1}$$

$$.19565215 = x$$

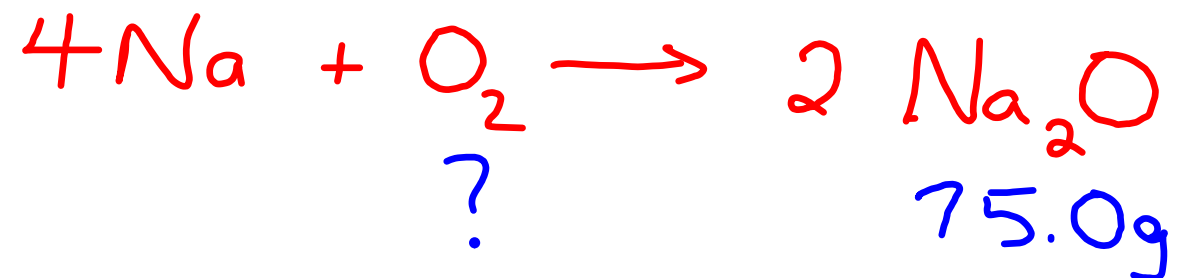
$$\frac{.19565215 \text{ mol} \times 32 \text{ g}}{1 \text{ mol}} =$$

0.16 x 2 = 32

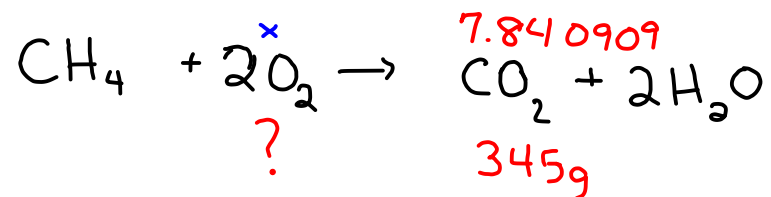
$$6.2608688 \text{ g}$$

6.26g

g $\rightarrow$ mol mol $\rightarrow$ mol mol $\rightarrow$ g



24 $g \rightarrow \text{mol}$ $\text{mol} \rightarrow \text{mol}$ $\text{mol} \rightarrow g$



① C $12 \times 1 = 12$

O $16 \times 2 = 32$

44g = 1mol

$$\frac{345g \times 1\text{mol}}{44g} = 7.840909 \text{ mol CO}_2$$

② $\frac{x}{2} = \frac{7.840909}{1}$

$$x = (2)(7.840909)$$

$$x = 15.681818 \text{ mol O}_2$$

③ $\frac{15.681818 \text{ mol} \times 32g}{1\text{mol}} =$

O $16 \times 2 = 32g$

$$501.81818g \text{ O}_2$$

$$502g \text{ O}_2$$

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

must be in kelvin (K)

$$K = ^\circ C + 273$$

$\text{N}_2(\text{g})$
 -196°C

$$-196^\circ\text{C} + 273 = 77\text{K}$$

OK = absolute zero

No movement of anything

5k

$$1 \text{ atm} = 760 \text{ mmHg} = 760 \text{ torr} =$$

$$101,325 \text{ Pa} = 14.7 \text{ psi}$$

Pascals

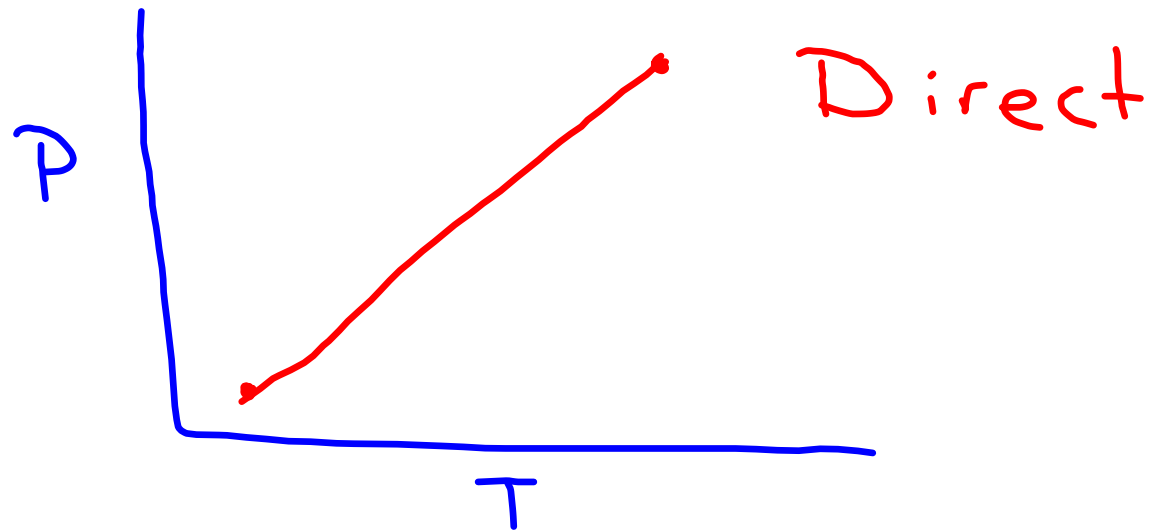
press. per
square inch

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

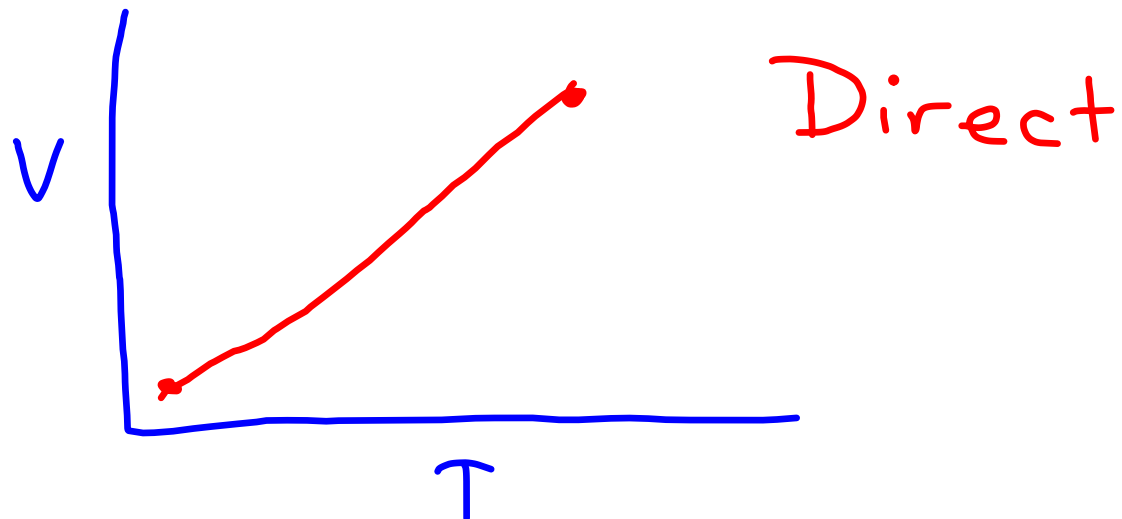


$$K = ^\circ C + 273$$

$$\frac{P_1}{T_1} = \frac{P_2}{T_2}$$

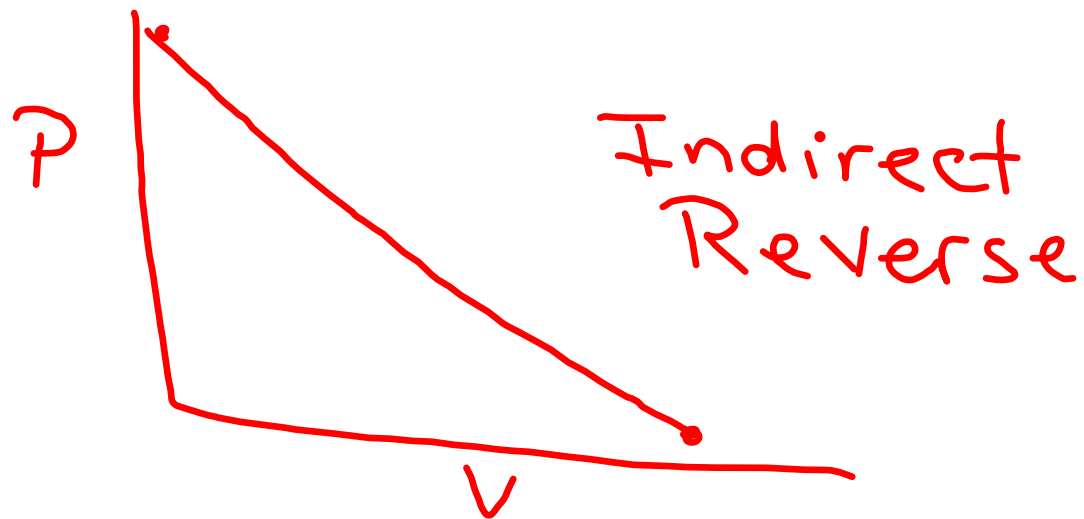


$$\frac{V_1}{T_1} = \frac{V_2}{T_2}$$



$$P_1 V_1 = P_2 V_2$$

↑ ↓



4.

$$273 + 25.6 = 298.6$$

$$\frac{(1.3)(330)}{298.6} = \frac{(2.5)(250)}{x}$$

$$\frac{1.43670}{1} = \frac{625}{x}$$

$$\frac{625}{1.43670} = x(1.43670)$$

$$435.024 \text{ K} = x$$

$$435.024 = ^\circ\text{C} + 273$$

$$162.02^\circ\text{C}$$

$$160^\circ\text{C}$$

8.

$$\frac{\cancel{P_1} V_1}{T_1} = \frac{\cancel{P_2} V_2}{T_2}$$

$$\frac{4.4}{307.2} = \frac{5.1}{x}$$

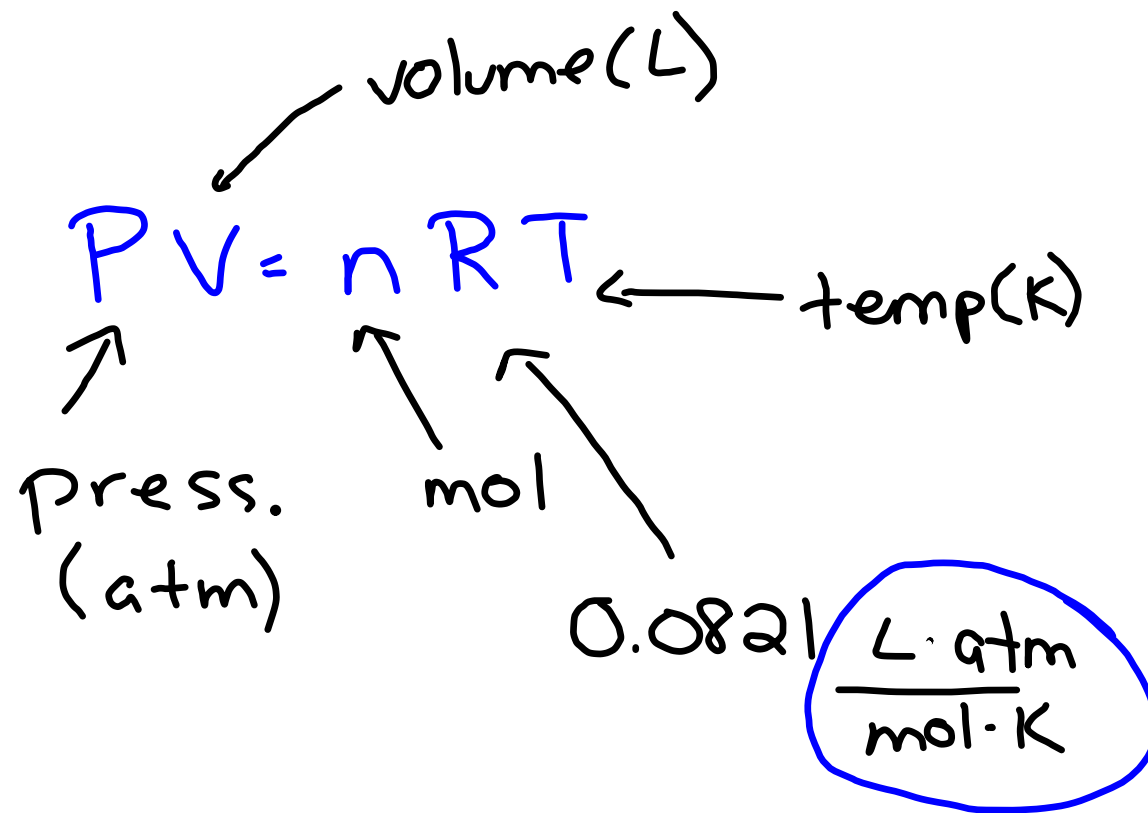
$$(307.2)(5.1) = 4.4(x)$$

$$\frac{1566.72}{4.4} = \frac{4.4(x)}{4.4}$$

$$356.0727\text{K} = x$$

$$83^{\circ}\text{C}$$

$$356.0727 = ^{\circ}\text{C} + 273$$



$$\begin{array}{l} 2. \quad \frac{450 \text{ mmHg} \times 1 \text{ atm}}{760 \text{ mmHg}} = \\ .592105263 \text{ atm} \end{array}$$