

Name :

Class:

Date:

Moles of compounds

Convert Mole of compound to Mole of atom

first: look at this example

Determine the moles of O atom are present in 5.00 mol of P_2O_5 .

solution:

- The relationship between O atom and P_2O_5 is $\frac{5 \text{ mol O}}{1 \text{ mol P}_2\text{O}_5}$
- convert from mole of compound to mole of atom

$$5.00 \text{ mol P}_2\text{O}_5 \times \frac{5 \text{ mol O}}{1 \text{ mol P}_2\text{O}_5} = 25 \text{ mol O}$$

Second: Solve this question

1- Plants and animals depend on glucose ($\text{C}_6\text{H}_{12}\text{O}_6$) as an energy source. Calculate the moles of Hydrogen present in 1.25 mol $\text{C}_6\text{H}_{12}\text{O}_6$

- The relationship between H atom and $\text{C}_6\text{H}_{12}\text{O}_6$ is _____
- convert from mole of compound to mole of atom

$$\text{mol C}_6\text{H}_{12}\text{O}_6 \times \text{_____} = \text{mol H}$$

2- Calculate the number of moles of Aluminum atoms present in 2.5 mol of Aluminum oxide

- Formula of Aluminum oxide =
- The relationship between Al atom and Aluminum oxide is _____
- convert from mole of compound to mole of atom

$$\text{mol} \times \text{_____} = \text{mol Al}$$