## Mole Map - Using a Mole Map

## **Question One:**

How many molecules is 88 grams of CO<sub>2</sub>?



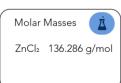
## **Question Two:**

How many grams is  $3.01 \times 10^{23}$  molecules of dinitrogen pentoxide,  $N_2O_5$ ?



## **Question Three**

How many formula units is 8.6 grams of zinc chloride, ZnCl₂?



# **Using a Mole Map for More Difficult Conversions**

### **Question Four**

How many chloride ions are present in 0.5 moles of CaCl₂?





Ca 40.1g/mol Cl 35.45 g/mol CaCl<sub>2</sub> 110.98 g/mol

#### **Question Five**

How many chloride ions are present in 8.6 grams of ZnCl₂?

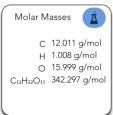
Molar Masses



Zn 65.38 g/mol Cl 35.453 g/mol ZnCl<sub>2</sub> 136.286 g/mol

### **Question Six**

In a sample of sucrose  $C_{12}H_{22}O_{11}$  there were 8.56 x  $10^{24}$  atoms of oxygen, how many grams of sucrose were in the sample?



### **Question Seven**

 $5.0 \text{ g sucrose } C_{12}H_{22}O_{11} \text{ contains how many atoms of Hydrogen?}$ 

