

More Difficult Mole Conversions

Question One

How many chloride ions are present in 0.5 moles of CaCl_2 ?

| Molar Masses | |
|-----------------|--------------|
| Ca | 40.1 g/mol |
| Cl | 35.45 g/mol |
| CaCl_2 | 110.98 g/mol |

Question Two

How many chloride ions are present in 8.6 grams of ZnCl_2 ?

| Molar Masses | |
|-----------------|---------------|
| Zn | 65.38 g/mol |
| Cl | 35.453 g/mol |
| ZnCl_2 | 136.286 g/mol |

Question Three

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

| Molar Masses | |
|----------------------|---------------|
| C | 12.011 g/mol |
| H | 1.008 g/mol |
| O | 15.999 g/mol |
| $C_{12}H_{22}O_{11}$ | 342.297 g/mol |

Question Four

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

| Molar Masses | |
|----------------------|---------------|
| C | 12.011 g/mol |
| H | 1.008 g/mol |
| O | 15.999 g/mol |
| $C_{12}H_{22}O_{11}$ | 342.297 g/mol |