**The percentage composition of a compound is a statement of the relative mass each element contributes to the mass of the compound as a whole.**

**% composition= X 100**

**What are the mass % of carbon and oxygen in carbon dioxide, CO2?**

* **First, look up the atomic masses for carbon and oxygen from the Periodic Table. The atomic masses are found to be:**

**C is \_\_\_\_\_\_\_\_  
O is \_\_\_\_\_\_\_\_**

* **Next, determine how many grams of each element are present in one mole of CO2:**

**\_\_\_\_\_\_\_\_\_\_ g (1 mol) of C  
\_\_\_\_\_\_\_\_\_\_ g (2 mole x 16.00 gram per mole) of O**

* **The mass of one mole of CO2 is:**

**12.01 g + 32.00 g = 44.01 g**

* **And the mass percentages of the elements are**

**mass % C = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ %  
mass % O = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ %**

**Answer**

* **mass % C = \_\_\_\_\_\_\_\_\_\_ %  
  mass % O = \_\_\_\_\_\_\_\_\_\_ %**