

Hw  
7.7.21

① Give five major differences between elements and compounds.

Ans. Compounds

→ A compound contains atoms of different elements chemically combined together in a fixed ratio.

→ A compound can be separated into simpler substances by chemical methods/ reactions.

→ It is represented using chemical formula that represents symbols or molecular formula.

Elements

→ An element is a pure chemical substance made of same type of atom.

→ Elements cannot be broken into simpler substances by chemical reactions.

→ An element is represented using symbols.

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→ Compounds' classification can be done as ionic compounds, molecular compounds, complexes and intermetallic compounds

→ Ex- Sodium chloride (NaCl)  
Water ( $H_2O$ ) etc.

→ Elements' classification can be done as metalloid, metal and non-metal.

→ Ex- Oxygen (O),  
Hydrogen (H),  
Chlorine (Cl),  
Sodium (Na) etc.

② Explain, why we say  $H_2O$  is a compound but  $H_2$  and  $O_2$  are elements?

Ans.  $H_2O$  is a compound because water molecules have two hydrogen atoms and one oxygen atom. But  $H_2$  and  $O_2$  are pure chemical substance made of same type of atom.