Name: _____ Period:_____ Date:_____

Atoms and Molecules Exit Quiz

1. **For each of the substances in the table below, decide if they are an example of a molecule (M) or both a molecule and a compound (MC).**

Substance	M or MC?	Substance	M or MC?
Carbon dioxide (CO_2)		Fullerene (C_{60})	
Salt (NaCl)		Sand (SiO_2)	
Sulfur (S_8)		Baking soda ($NaHCO_3$)	
Hydrogen gas (H_2)		Glucose ($C_6H_{12}O_6$)	

2. **For each of the following substances, give the total number of atoms:**

   a) 2 molecules of carbon dioxide ($2CO_2$)

   b) 3 molecules of nitric acid ($3HNO_3$)

3. **Give the number of oxygen atoms in:**

   a) Rust (FeO_3)

   b) 2 molecules of aspirin ($C_9H_8O_4$)

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Atoms and Molecules Exit Quiz Answers

1. **For each of the substances in the table below, decide if they are an example of a molecule (M) or both a molecule and a compound (MC).**

Substance	M or MC?	Substance	M or MC?
Carbon dioxide (CO_2)	MC	Fullerene (C_{60})	M
Salt (NaCl)	MC	Sand (SiO_2)	MC
Sulfur (S_8)	M	Baking soda ($NaHCO_3$)	MC
Hydrogen gas (H_2)	M	Glucose ($C_6H_{12}O_6$)	MC

2. **For each of the following substances, give the total number of atoms:**

   a) 2 molecules of carbon dioxide ($2CO_2$)
   Carbon (C) = 1
   Oxygen (O_2) = 2
   Total for 1 molecule = 1 +2 = 3
   Total for 2 molecules = 2 x 3 = 6

   b) 3 molecules of nitric acid ($3HNO_3$)
   Hydrogen (H) = 1
   Nitrogen (N) = 1
   Oxygen (O_3) = 3
   Total for 1 molecule = 1 +1 +3 = 5
   Total for 3 molecules = 3 x 5 = 15

3. **Give the number of oxygen atoms in:**

   a) Rust (FeO_3)
   O_3 = 3 oxygen atoms

   b) 2 molecules of aspirin ($C_9H_8O_4$)
   O_4 = 4 oxygen atoms in 1 molecule
   2 x 4 = 8