

Counting Atoms Worksheet

Name: _____ Grade: _____

Instructions: Read each question carefully and solve by counting the total number of atoms using your knowledge of chemical formulas. Show your work if needed.

1. In **H₂O**, there are ___ hydrogen atoms and ___ oxygen atom.
2. In **CO₂**, there is ___ carbon atom and ___ oxygen atoms.
3. **NaCl** contains ___ sodium atom and ___ chlorine atom.
4. In **Mg(OH)₂**, there are ___ magnesium atom(s), ___ oxygen atoms, and ___ hydrogen atoms.
5. **CaCO₃** contains ___ calcium atom, ___ carbon atom, and ___ oxygen atoms.
6. In **C₆H₁₂O₆**, there are ___ carbon atoms, ___ hydrogen atoms, and ___ oxygen atoms.
7. **Al₂(SO₄)₃** has ___ aluminum atoms, ___ sulfur atoms, and ___ oxygen atoms.
8. In **Fe₂O₃**, there are ___ iron atoms and ___ oxygen atoms.
9. **Na₂SO₄** has ___ sodium atoms, ___ sulfur atom, and ___ oxygen atoms.
10. In **KNO₃**, there is ___ potassium atom, ___ nitrogen atom, and ___ oxygen atoms.

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Answer Key

1. 2 hydrogen, 1 oxygen
2. 1 carbon, 2 oxygen
3. 1 sodium, 1 chlorine
4. 1 magnesium, 2 oxygen, 2 hydrogen
5. 1 calcium, 1 carbon, 3 oxygen
6. 6 carbon, 12 hydrogen, 6 oxygen
7. 2 aluminum, 3 sulfur, 12 oxygen
8. 2 iron, 3 oxygen
9. 2 sodium, 1 sulfur, 4 oxygen
10. 1 potassium, 1 nitrogen, 3 oxygen