

1. Oleic acid is a component in olive oil. It is 76.5% carbon, 12.1% hydrogen, and 11.3% oxygen. The molecular weight of the compound is 282 g/mol. What is the molecular formula of oleic acid?
2. Serotonin is a compound that conducts nerve impulses in the brain...thought to be a happy neurotransmitter. It is 68.2% C, 6.86% H, 15.9% N, and 9.08% O. The molecular weight is 176 g/mol. What is the molecular formula of serotonin?
3. You find that 7.36 g of a compound has decomposed to give 6.93 g of oxygen. The only other element in the compound is hydrogen. If the molecular weight of the compound is 34.0 g/mol, what is its molecular formula?
4. An acid is known to be 2.24% H, 26.68% C, and 71.08% O. Its molecular weight is 90.04 g/mol. What is the name of the acid?