

Name _____

The Significance of Atomic Number and Atomic Mass

Short Answer

1. Explain why elements on the periodic table are arranged by increasing atomic number.
2. Describe the relationship between atomic mass and the abundance of isotopes in an element.
3. Calculate the atomic mass of carbon, given that it has two common isotopes: carbon-12 (12.000 amu) and carbon-13 (13.003 amu). Assume equal abundance.
4. How does the atomic mass of an element with a higher atomic number compare to that of an element with a lower atomic number? Provide an example.
5. Discuss the role of atomic mass in chemical calculations and why it is essential for chemists.

