

Section 4.3 *continued*

16. An isotope has an atomic number 51 and a mass number 123.
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Answer the following question.

17. Which of the isotopes in problems 13–16 are isotopes of the same element? Identify the element.
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Write each isotope below in symbolic notation. Use the periodic table to determine the atomic number of each isotope.

18. neon-22 _____

20. cesium-133 _____

19. helium _____

21. uranium-234 _____

Label the mass number and the atomic number on the following isotope notation.

22. _____ \rightarrow $^{24}_{12}\text{Mg}$

23. _____ \rightarrow $^{24}_{12}\text{Mg}$

In your textbook, read about mass of individual atoms.

Circle the letter of the choice that best completes the statement.

24. The mass of an electron is
- smaller than the mass of a proton.
 - smaller than the mass of a neutron.
 - a tiny fraction of the mass of an atom.
 - all of the above.
25. One atomic mass unit is
- 1/12 the mass of a carbon-12 atom.
 - 1/16 the mass of an oxygen-16 atom.
 - exactly the mass of one proton.
 - approximately the mass of one proton plus one neutron.
26. The atomic mass of an atom is usually not a whole number because it accounts for
- only the relative abundance of the atom's isotopes.
 - only the mass of each of the atom's isotopes.
 - the mass of the atom's electrons.
 - both the relative abundance and the mass of each of the atom's isotopes.