

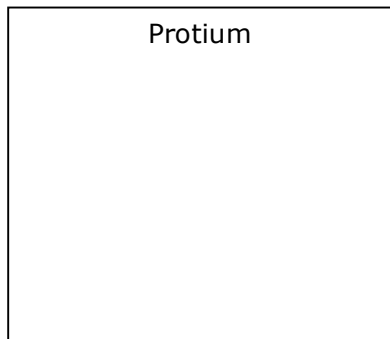
CHEMISTRY QUIZ PRACTICE QUESTIONS

Read and questions carefully and write your answers directly on this page.

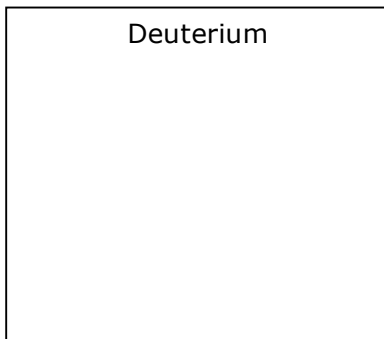
1. Hydrogen has three isotopes: hydrogen-1 (that means hydrogen with a mass number of 1), called protium; hydrogen-2 (mass number of 2), called deuterium; and hydrogen-3 (mass number of 3), called tritium. All have an atomic number of 1.

Draw a Bohr model for each isotope of hydrogen in the squares below.

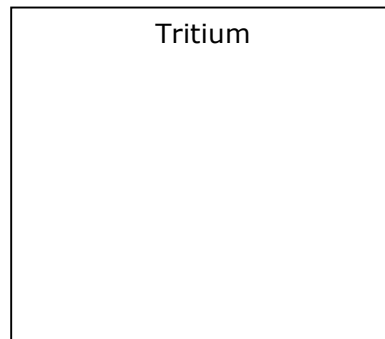
Protium



Deuterium

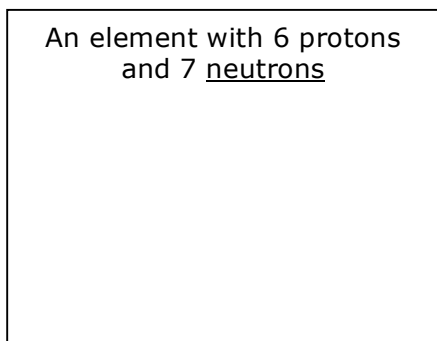


Tritium

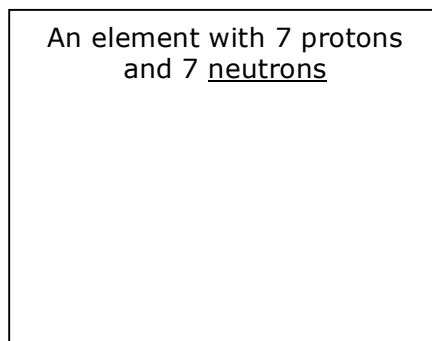


2. Draw two Bohr models in the squares below.

An element with 6 protons
and 7 neutrons



An element with 7 protons
and 7 neutrons



Are these two elements isotopes or are they different elements? _____

3. In each of the following statements, you are given a pair of elements and important information about each. Use this information to determine if the pair of elements are *isotopes* or *different elements*. Indicate your answer in the space provided to the right.

A. Element Q has 56 protons and 81 neutrons.
Element R has 55 protons and 81 neutrons.

B. Element P has an atomic number of 92 and an atomic mass of 238.
Element S has 92 protons and 143 neutrons.

4. Are the following elements metals, nonmetals, or metalloids?

a. argon _____

c. lithium _____

c. arsenic _____

d. hydrogen _____

5. What period # and group # are the following elements in?
- phosphorus _____
 - calcium _____
 - neon _____
6. You should be able to tell, just by looking at the periodic table, how many valence electrons and energy levels (shells) each of the following elements has. Write the numbers in the spaces below.
- Sodium: _____
 - Germanium: _____
 - Neon: _____
7. What is the atomic number and atomic symbol of the following elements?
- Magnesium _____
 - Silver _____
 - Oxygen _____
8. How many protons does sulfur have? _____
9. How many neutrons does argon have? _____
10. What is the atomic mass of beryllium? _____
11. How many electrons does an atom of potassium have? _____
12. If an atom has 9 protons, 10 neutrons and 9 electrons:
- What is the atom's atomic number? _____
 - What is the atom's mass number? _____
 - What is the name of this element? _____
 - How does this atom's atomic radius compare to nitrogen? What about iodine?
 - Draw a Bohr model of this atom in the space below.