

The atomic number of an element is equal to:

- A. the number of protons in the atom
- B. the number of neutrons in the atom
- C. the number of protons plus the number of neutrons
- D. the number of protons plus the number of electrons

2. The laws of electrostatics consistently demonstrate that "like" (identical) charges:

A. attract

B. destroy one another

C. repel

3. The _____ constitute(s) most of the volume of an atom.

A. electron cloud

B. protons

C. neutrons

D. nucleus

4. The mass number of an atom is determined by:

A. adding the neutrons and protons

B. adding the protons and electrons

C. the number of protons only

D. adding the neutrons and electrons

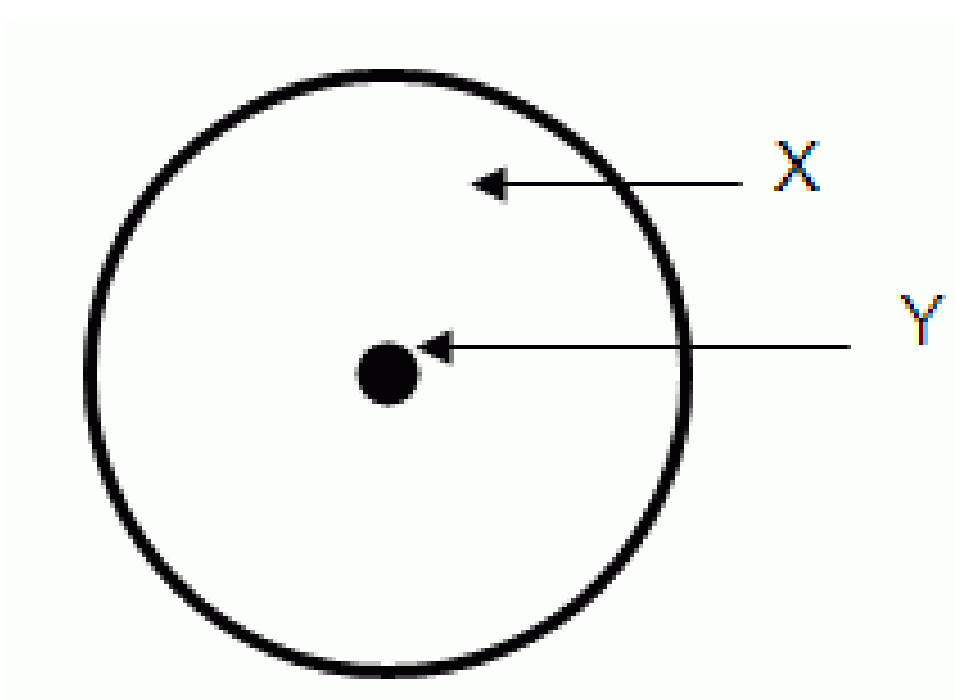
5. The charge and mass number of a neutron are:

A. charge = +1, Mass number = 1

B. charge = +1, Mass number = 0

C. charge = -1, Mass number = 0

D. charge = 0, Mass number = 1



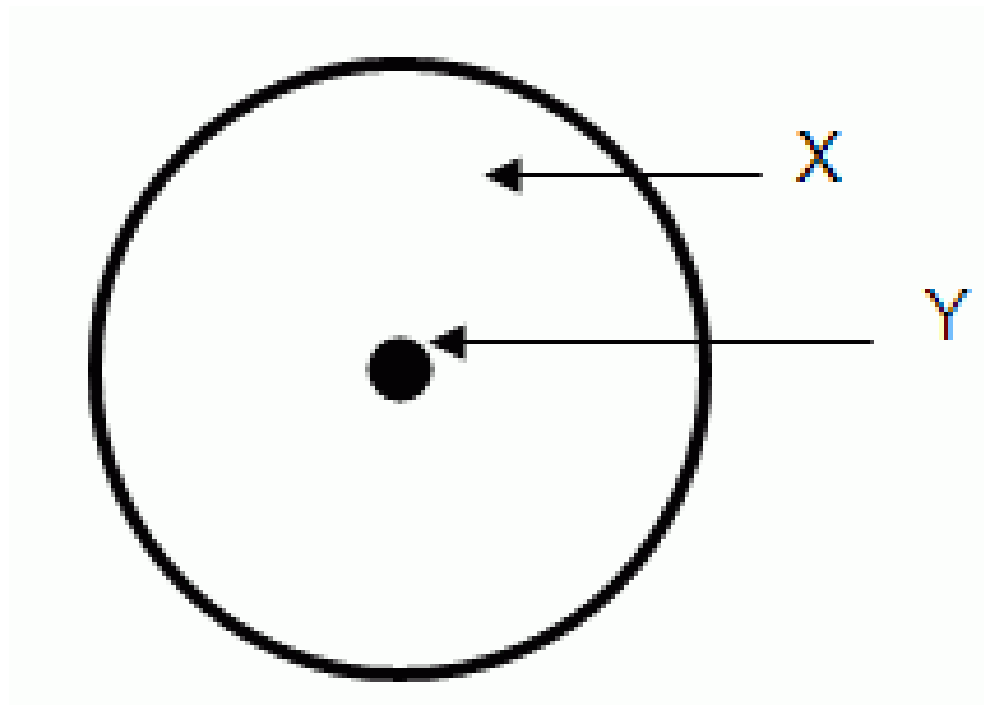
6.

The region labeled "Y" in the diagram has a charge that is:

A. negative

B. positive

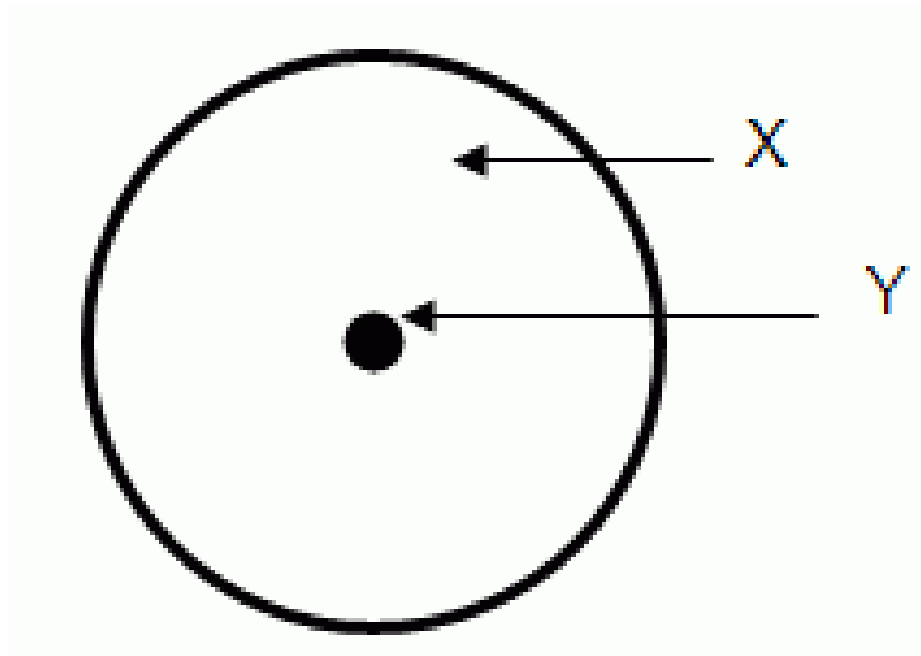
C. neutral



7.

The letter "Y" in the diagram above marks the:

- a. Electron cloud
- b. Location of the neutrons
- c. Nucleus
- d. Region of greatest density
- e. Location of the protons



8.

The region labeled "X" in the diagram has a charge that is:

- A. ? neutral
- B. ? positive
- C. ? negative

9. The nucleus of the atom is held together by:

A. electrostatic attraction

B. electrons

C. nuclear forces

D. magnetism

10. Isotopes (such as hydrogen-1, hydrogen-2, and hydrogen-3) are atoms of the same element that differ in:

- a. the number of neutrons in the nucleus
- b. the mass number
- c. the atomic number
- d. the number of protons in the nucleus
- e. the number of electrons

11. The charge and mass number of an electron are:

A. ? charge = 0, Mass number = 1

B. ? charge = +1, Mass number = 1

C. ? charge = +1, Mass number = 0

D. ? charge = -1, Mass number = 0

Of the basic atomic particles, the one that would be attracted to a negatively charged metallic plate is the:

A. neutron

B. proton

C. electron

13. The nucleus of most atoms is made up of:

A. ? protons and electrons

B. ? neutrons and electrons

C. ? electrons and protons

D. ? protons and neutrons

The laws of electrostatics consistently demonstrate that opposite charges:

A. destroy one another

B. attract

C. repel

15. The charge and mass number of a proton are:

A. charge = +1, Mass number = 0

B. charge = -1, Mass number = 0

C. charge = 0, Mass number = 1

D. charge = +1, Mass number = 1

16. Which of the following descriptions apply to the nucleus?

- a. Mostly empty space
- b. Positively charged
- c. Dense
- d. Small

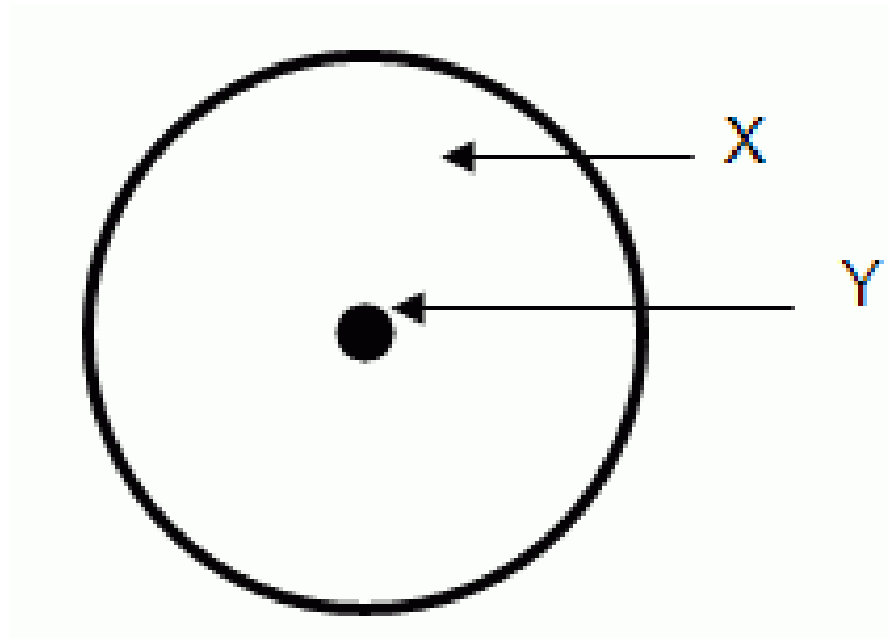
17. Most of the mass of the atom can be found in the:

A. charges

B. electron cloud

C. nucleus

D. electrons



18.

The letter "X" in the diagram above marks the:

- a. Region of greatest density
- b. Nucleus
- c. Location of the neutrons
- d. Electron cloud
- e. Location of the protons

1. Isotopes have same number of protons and different number of _____

- electrons
- neutrons
- none of the above

The mass of a proton is _____.

- 1/2000 amu
- 2 amu
- 1 amu

N atom has 7 protons and a mass number of 14.

What is the number of neutrons in an atom of N?

- 7
- 14
- 21

The mass of an electron is _____

- 1 amu
- 1/2000 amu
- 2 amu

The particles with no charge in an atom are the _____

- electrons
- protons
- neutrons

The atomic number of O atom is 8. Its mass number is 16.

The number of neutrons in an atom of O is _____.

- 8
- 16
- 24

The positively charged particles of an atom are the _____

- electrons
- protons
- neutrons

The mass of a neutron is _____

- 1/2000 amu
- 2 amu
- 1 amu

The number of protons in a neutral atom will be equal to the number of

- neutrons
- electrons
- electrons + neutrons

The negatively charged particles of an atom are the _____

- electrons
- protons
- neutrons

An atom as a whole is _____

- electrically neutral.
- positively charged.
- negatively charged.

Atoms with the same number of protons but different number of neutrons are called _____

- ions
- nuclei
- isotopes

Most of the atom is _____

- protons
- nucleus
- empty space