

Atomic Structure

Name: _____ Date: _____

Part A: Use your knowledge of atomic structure to fill in the blanks.

1. The atomic number tells the number of positively charged _____ in the nucleus of an atom. The atom is _____ because the number of protons is also the number of _____ charged _____ in the atom.
2. The mass number tells the total number of _____ and _____ in the nucleus of an atom. These particles are collectively called _____ since both are located in the nucleus.
3. Isotopes are atoms of the same elements with different numbers of _____, which results in different _____ numbers.

Part A: Fill in the blanks for elements in this chart. For the purpose of this chart, round the atomic masses to the nearest whole number.

Element	Number of Protons	Number of Neutrons	Number of Electrons	Atomic Mass	Atomic Number
Beryllium					
Nitrogen					
Silicon					
Argon					
Titanium					
Copper					
Bromine					
Zirconium					
Indium					
Barium					

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Answers

Part A: Use your knowledge of atomic structure to fill in the blanks.

1. The atomic number tells the number of positively charged protons in the nucleus of an atom. The atom is neutral because the number of protons is also the number of negatively charged electrons in the atom.
2. The mass number tells the total number of protons and neutrons in the nucleus of an atom. These particles are collectively called nucleons since both are located in the nucleus.
3. Isotopes are atoms of the same elements with different numbers of neutrons , which results in different mass numbers.

Part A: Fill in the blanks for elements in this chart. For the purpose of this chart, round the atomic masses to the nearest whole number.

Element	Number of Protons	Number of Neutrons	Number of Electrons	Atomic Mass	Atomic Number
Beryllium	4	5	4	9	4
Nitrogen	7	7	7	14	7
Silicon	14	14	14	28	14
Argon	18	22	18	40	18
Titanium	22	26	22	48	22
Copper	29	34	29	64	29
Bromine	35	45	35	80	35
Zirconium	40	51	40	91	40
Indium	49	66	49	115	49
Barium	56	82	56	137	56