

Name : \_\_\_\_\_

Date : \_\_\_\_\_

# Atomic Structure Worksheet

- ① What are isotopes?
- ② When an isotope is written in word, a dash, and a number, what does the number next to the isotope signify?
- ③ How can you tell isotopes apart?
- ④ Complete the table for the following isotopes.

	Iodine - 125	Iodine - 128
# of protons		
# of neutrons		
# of electrons		
	Chromium - 58	Iodine - 125
# of protons		
# of neutrons		
# of electrons		

- ⑤ Circle the correct answer for the following multiple-choice questions.
  - i) Fluorine is represented by which of the following chemical symbol?  
a) F                                      b) Fe                                      c) Fi                                      d) Fl
  - ii) The compound  $C_6H_{12}O_6$  contains how many atoms of oxygen?  
a) 4                                      b) 6                                      c) 12                                      d) 14
  - iii) An atom which has 9 protons, 8 neutrons, and 9 electrons will have an atomic mass of how many amu?  
a) 6                                      b) 8                                      c) 9                                      d) 17
  - iv) An atom of magnesium has how many protons?  
a) 12                                      b) 20                                      c) 24                                      d) 25

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# Atomic Structure Worksheet

Answers

① What are isotopes?

Atoms having the same number of protons but different number of neutrons.

② When an isotope is written in word, a dash, and a number, what does the number next to the isotope signify?

The mass number of the isotope.

③ How can you tell isotopes apart?

From the number of neutrons or from the mass number.

④ Complete the table for the following isotopes.

	Iodine - 125	Iodine - 128
# of protons	53	53
# of neutrons	72	75
# of electrons	53	53
	Chromium - 58	Iodine - 125
# of protons	24	24
# of neutrons	34	39
# of electrons	24	24

⑤ Circle the correct answer for the following multiple-choice questions.

i) Fluorine is represented by which of the following chemical symbol?

a) F

b) Fe

c) Fi

d) Fl

ii) The compound  $C_6H_{12}O_6$  contains how many atoms of oxygen?

a) 4

b) 6

c) 12

d) 14

iii) An atom which has 9 protons, 8 neutrons, and 9 electrons will have an atomic mass of how many amu?

a) 6

b) 8

c) 9

d) 17

iv) An atom of magnesium has how many protons?

a) 12

b) 20

c) 24

d) 25