QUIZIZZ

NAME : _____

CLASS : _____

Isotopes
20 Questions

DATE : _____

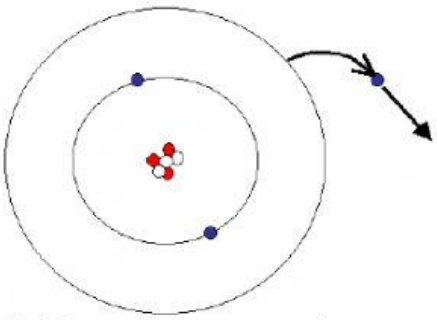
1. Which of these determines the identity of an atom?

proton

neutron

valence electron

protons and neutrons

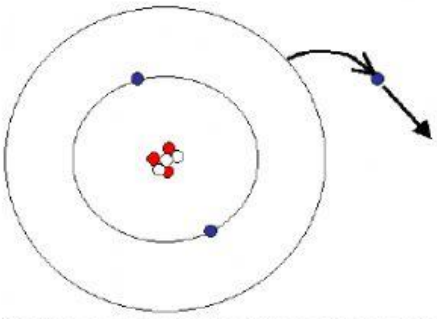
2. 

Gaining or losing protons in an atom changes its...

isotope type.

charge.

identity. It becomes a different element.

3. 

Gaining or losing neutrons in an atom changes its...

isotope type.

charge.

identity. It becomes a different element.

LIVEWORKSHEETS

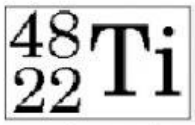
4. In the notation $^{289}_{115}$Mc, the number 289 is the

mass number

atomic number

number of neutrons

number of electrons

5. 

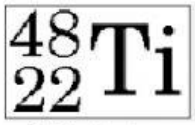
How many neutrons does this isotope of titanium have?

48

22

26

70

6. 

The name of this isotope of titanium is

titanium-48

titanium-22

titanium-26

7. If X is the symbol for an element, select the two symbols represent isotopes of the same element.

$^{77}_{35}X$

$^{79}_{37}X$

$^{81}_{36}X$

$^{81}_{35}X$

LIVEWORKSHEETS

8. 24.1% of all the isotopes of an element have a mass of 75.23 u, 48.7% have a mass of 74.61 u, and 27.2% have a mass of 75.20 u.
What is the average atomic mass of this element?

74.92 u

24.97 u

75.01 u

74.51 u

9. 

How many neutrons are in the following atom?

47

61

108

155

10. 

What is the name of the pictured isotope?

Chlorine-Schmorine

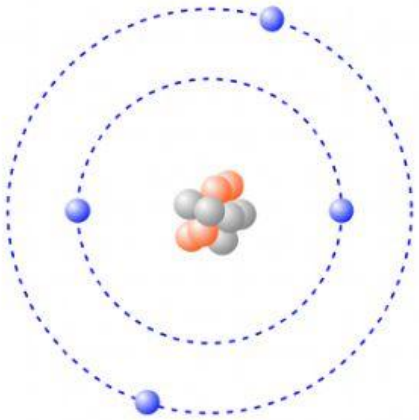
Chlorine-17

Chlorine-35

Chlorine-18

LIVEWORKSHEETS

11.



What isotope is shown here? (Red = protons, gray = neutrons, blue = electrons)

Beryllium-5

Beryllium-9

Boron-4

Boron-9

12. An atom is electrically neutral when

protons and neutrons are the same

protons and electrons are the same

neutrons and electrons are the same

13. $^{12}_{6}C$ $^{13}_{6}C$ $^{14}_{6}C$

These three isotopes of carbon have different -

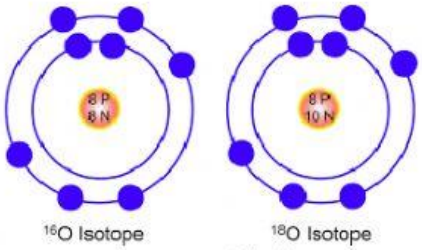
Atomic numbers

Mass numbers

Numbers of protons

Symbols

14.



_____ are atoms with the same number of protons but varying numbers of neutrons.

ions

elements

allotropes

isotopes

LIVEWORKSHEETS

15. When two atoms of the same element have different masses, they are called _____, and have a different number of _____.

Neutrons; Isotopes

Atoms; Isotopes

Isotopes; Protons

Isotopes; Neutrons

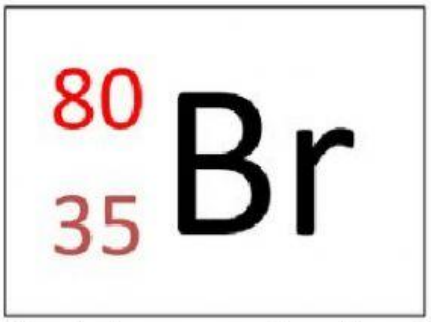
16. Calcium has the atomic number 20. If it has a mass number of 46, how many neutrons are present?

46

20

26

We cannot tell

17. 

What is the mass number of bromine?

35

45

80

115

18.

Mass	% Abundance
23.99 amu	78.99
24.99 amu	10.00
25.99 amu	11.01

An element exists as the three isotopes shown. What is the average atomic mass?

20.74 amu

22.56 amu

18.39 amu

24.31

LIVEWORKSHEETS

19. An isotope has three forms. 30% have a mass of 4 amu, 20% have a mass of 5 amu and 50% have a mass of 3 amu. Average atomic mass will be closest to

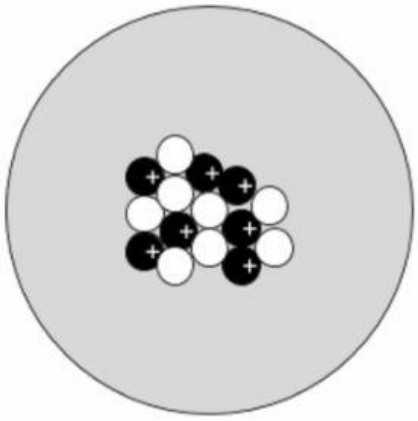
2 amu

3 amu

4 amu

5 amu

20.



What is the name of the atom pictured here?

Nitrogen

Nitrogen-15

Nitrogen-7

Nitrogen-8

LIVEWORKSHEETS