

S8P1-5

1. Which is the correct symbol for the element sodium?

- A. S
 - B. AI
 - C. Cl
 - D. Na
-

2.

As you move across the periodic table from right to left within a period, the elements

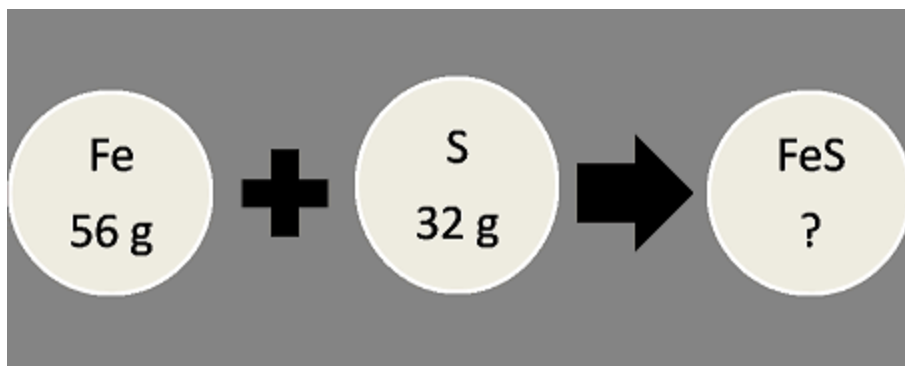
- A. become less stable.
 - B. become more reactive.
 - C. change from gases to solids.
 - D. change from metals to nonmetals.
-

3.

Copper (Cu) is a transition metal found in the 11th column of the periodic table. What statement is true about copper and the two other elements in that column?

- A. All three elements are nonreactive.
 - B. All three elements are in the same period.
 - C. All three elements have the same number of protons.
 - D. All three elements have similar chemical properties.
-

4.



Using the Law of Conservation of Matter, determine the number of grams of iron sulfide (FeS) that will be produced in this reaction.

- A. 24 grams
 - B. 32 grams
 - C. 56 grams
 - D. 88 grams
-

5.

During a science lab investigating chemical reactions, Mrs. Gray's students placed an antacid tablet in a zip lock bag. They recorded the mass of the tablet, 25 grams, and the bag, 60 grams. Then they carefully added 50 grams of water and quickly sealed the bag. The tablet began to fizz and soon disappeared. The bag was filled with gas. If the total mass of the bag + tablet + water was 135 grams before the reaction, what was the total mass of the bag + liquid + gas after the reaction was completed?

- A. 60 grams
 - B. 75 grams
 - C. 135 grams
 - D. 270 grams
-

6.

During a science lab investigating chemical reactions, Mrs. Gray's students placed an antacid tablet in a zip lock bag. They recorded the mass of the tablet, 25 grams, and the bag, 60 grams. Then they carefully added 50 grams of water and quickly sealed the bag. The tablet began to fizz and soon disappeared. The bag was filled with gas. If the mass of the liquid after the reaction is completed is still 50 grams, how much gas is produced?

- A. 25 grams
- B. 50 grams
- C. 60 grams
- D. 95 grams

7. What is the smallest particle of the element gold (Au) that can still be classified as gold?

- A. atom
- B. molecule
- C. neutron
- D. proton

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8. Which of the following elements is part of the chemical formula for table salt?

- A. Na
- B. Si
- C. S
- D. O

9. Which symbolizes a molecule of a compound?

- A. He
 - B. Be
 - C. N₂
 - D. NaCl
-

10. Plastic, wood, and iron are all made up of

- A. cells.
 - B. atoms.
 - C. carbon.
 - D. plants.
-

11. Water is

- A. a compound.
 - B. an element.
 - C. a solution.
 - D. a mixture.
-

12.

What do these substances have in common?

air
helium gas
salt water
copper wire

- A. They are compounds.
 - B. They are pure substances.
 - C. They are composed of atoms.
 - D. They are composed of molecules.
-

13.

Two or more atoms, joined covalently, that act as a unit, are called a(n)

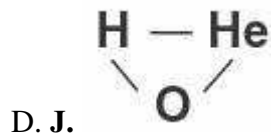
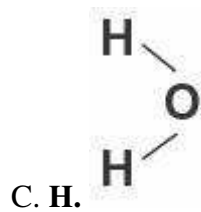
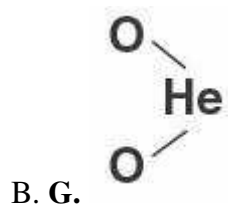
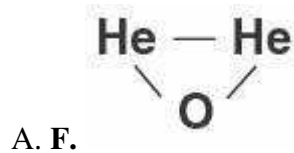
- A. ion.
 - B. atom.
 - C. mixture.
 - D. molecule.
-

14.

Which of the following particles combine to form molecules?

- A. atoms
- B. protons
- C. electrons
- D. compounds

15. Which picture illustrates the structure of a molecule of water?



16.

12.011
C
6

The diagram above shows a block from the periodic table. The number six represents the

- A. atomic mass of the element carbon
- B. atomic number of the element carbon
- C. number of neutrons in the element carbon
- D. number of valence electrons in the element carbon

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17. Which formulas represent compounds?

- A. O_2 , H_2O_2
 - B. CO_2 , H_2O
 - C. H_2 , CO_2
 - D. H_2 , O_2
-

18. Which of the following is a compound?

- A. oxygen
 - B. water
 - C. nitrogen
 - D. air
-

19. A solution in a dish contains 3.0 grams of salt dissolved in 100 grams of water. If 50 grams of the water evaporate, the solution is

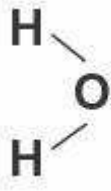
- A. a compound.
- B. a mixture.
- C. an element.
- D. a solid.

20. Carbon dioxide is

- A. an element.
- B. a compound.
- C. a solution.
- D. a mixture.

Answer Key

1. D) Na
2. D) change from metals to nonmetals.
3. D) All three elements have similar chemical properties.
4. D) 88 grams
5. C) 135 grams
6. A) 25 grams
7. A) atom

8. A) Na
9. D) NaCl
10. B) atoms.
11. A) a compound.
12. C) They are composed of atoms.
13. D) molecule.
14. A) atoms
15. C) **H.** The diagram shows a central oxygen atom (O) with two single bonds extending to two hydrogen atoms (H). One bond goes up and to the left, the other goes down and to the left. The oxygen atom is positioned to the right of the two hydrogen atoms.
16. B) atomic number of the element carbon
17. B) CO₂, H₂O
18. B) water
19. B) a mixture.

20. B) a compound.
