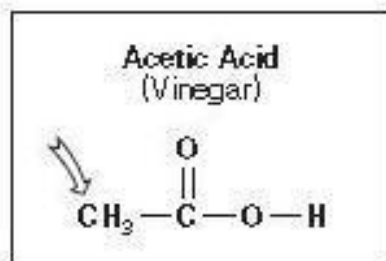


1



What is the name of the indicated atom in the acetic acid molecule shown above?

- A carbon
- B calcium
- C chromium
- D copper

CSZ0029

2

Iron oxides, such as rust, form when iron metal reacts with oxygen in the air. What are the chemical symbols for the two elements found in iron oxide?

- A I and O
- B Ir and O
- C Fe and O
- D Pb and O

CSZ0030

3

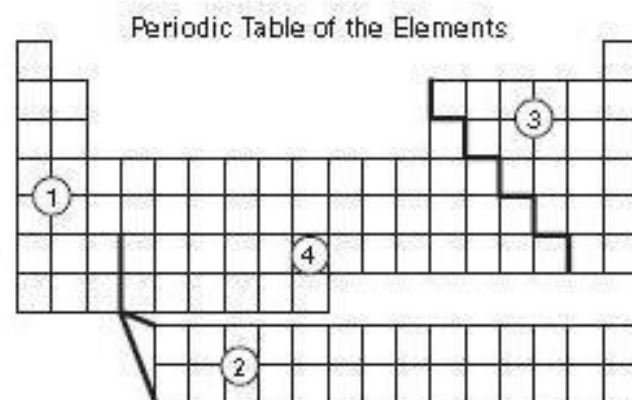
What do the elements sulfur (S), nitrogen (N), phosphorus (P), and bromine (Br) have in common?

- A They are noble (inert) gases.
- B They are nonmetals.
- C They have the same thermal conductivity.
- D They have the same number of protons.

CSZ0031

4

A diagram of the periodic table of the elements is shown below.



In which region of the table would nonmetals be found?

- A 1
- B 2
- C 3
- D 4

CSZ0032

5

The table below shows the atomic mass of four stable calcium (Ca) isotopes.

Isotope	Atomic Mass
Ca-40	40
Ca-42	42
Ca-43	43
Ca-44	44

What characteristic is different in each isotope?

- A the position in the periodic table of the elements
- B the net charge of the nucleus
- C the mass of the protons in the nucleus
- D the number of neutrons in the nucleus

CSZ0033

6 Which class of elements *best* conducts electricity?

- A metals
- B nonmetals
- C semimetals
- D noble (inert) gases

CSZ000

7 In a comparison of metals to nonmetals, metals tend to have

- A lower melting points and greater conductivity than nonmetals.
- B lower conductivity and lower density than nonmetals.
- C higher density and lower melting points than nonmetals.
- D greater conductivity and higher melting points than nonmetals.

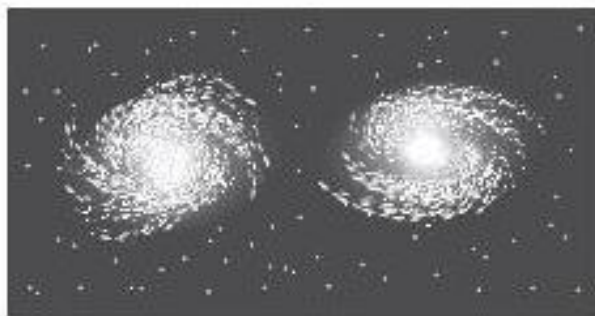
CSZ001

8 A student divides several cubes into two groups, based on whether or not each cube can float in water. What property is the student using to classify the cubes?

- A weight
- B density
- C conductivity
- D mass

CSZ005

9



The galaxies pictured above would *best* be classified as

- A barred galaxies.
- B spiral galaxies.
- C irregular galaxies.
- D symmetrical galaxies.

CSZ007

10 A galaxy is *best* described as a cluster of

- A hundreds of stars.
- B thousands of stars.
- C millions of stars.
- D billions of stars.

CSZ009

11 To express the distance between the Milky Way galaxy and other galaxies, the *most* appropriate unit of measurement is the

- A meter.
- B kilometer.
- C light-year.
- D astronomical unit.

CSZ002

**Answers:**

**1. A**

**2. C**

**3. B**

**4. C**

**5. D**

**6. A**

**7. D**

**8. B**

**9. B**

**10. D**

**11. C**