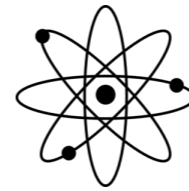


Put the following terms in order according to mass. Start with the smallest mass.

Protons, Electron, Atom

Electron, Proton, Atom

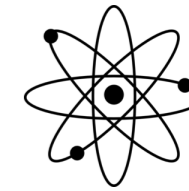
A



What is the charge of an electron?

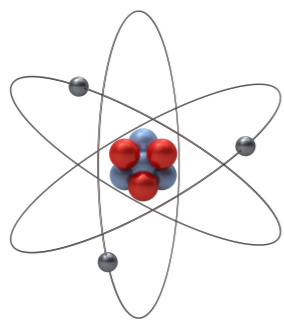
- A. Negative
- B. Neutral
- C. No Charge
- D. Positive

C



What two subatomic particles are found in the nucleus of an atom?

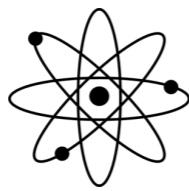
- A. Protons and Electrons
- B. Electrons and Neutrons
- C. Protons and Neutrons
- D. Protons and Atoms



How many neutrons are found in the Lithium atom above?

- A. 3
- B. 4
- C. 7
- D. 1

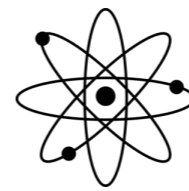
B



Which best describes the location and charge of a proton?

- A. Inside the nucleus, positive
- B. Electron cloud, negative
- C. Inside the nucleus, negative
- D. Electron cloud, positive

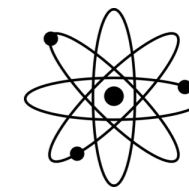
A

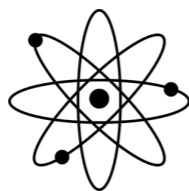


Which subatomic particle(s) makes up the majority of the mass of an atom?

- A. Protons
- B. Electrons
- C. Electrons and Neutrons
- D. Protons and Neutrons

D

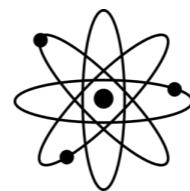




Which best describes the location and charge of a neutron?

- A. Nucleus, Neutral (no charge)
- B. Electron cloud, Neutral
- C. Nucleus, Positive
- D. Nucleus, Negative

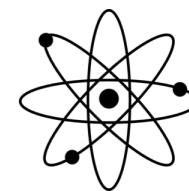
A



How many valence electrons does Nitrogen have?

- A. 5
- B. 15
- C. 2
- D. 4

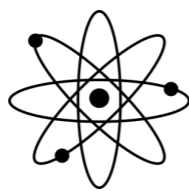
A



Which element has similar reactivity to Aluminum?

- A. Silicon
- B. Carbon
- C. Magnesium
- D. Boron

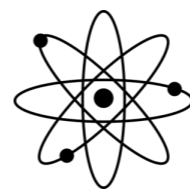
D



How many protons does Chlorine have?

- A. 35
- B. 17
- C. 18
- D. 4

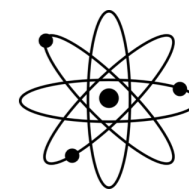
B



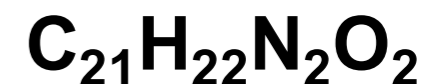
Which element is the most reactive?

- A. Potassium
- B. Titanium
- C. Iron
- D. Boron

A

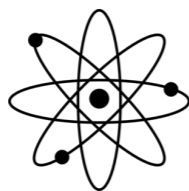


How many atoms are present in the following compound?



- A. 3
- B. 48
- C. 4
- D. 47

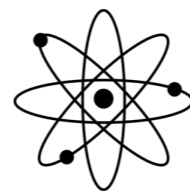
D



Which subatomic particle(s) determines the identity of an atom?

- A. Protons
- B. Neutrons
- C. Electrons
- D. Protons and Neutrons

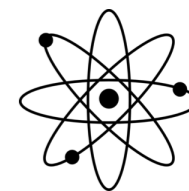
A



Which subatomic particle(s) determines the reactivity of an atom?

- A. Protons
- B. Neutrons
- C. Valence Electrons
- D. Protons and Neutrons

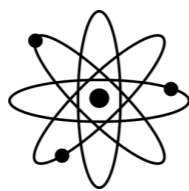
C



Which group is the most reactive group of elements?

- A. Group 1
- B. Group 4
- C. Group 8
- D. Group 18

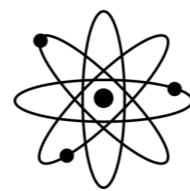
A



An unknown element has 9 protons, 10 neutrons, and 9 electrons. What is it?

- A. Neon
- B. Cobalt
- C. Aluminum
- D. Fluorine

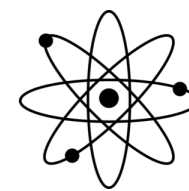
D



Which element is the most reactive?

- A. Magnesium
- B. Iron
- C. Gold
- D. Lithium

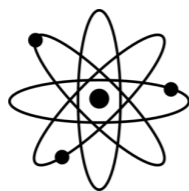
D



How many valence electrons does Boron have?

- A. 5
- B. 3
- C. 11
- D. 13

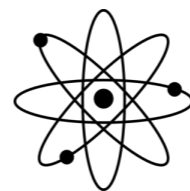
B



What do periods on the periodic table have in common?

- A. Same number of valence electrons
- B. Same number of energy levels
- C. Same number of protons
- D. Similar reactivity

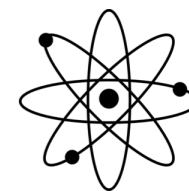
B



What do groups on the periodic table have in common?

- A. Same number of valence electrons
- B. Same number of energy levels
- C. Similar reactivity
- D. Both A and C

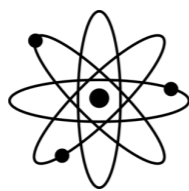
D



Which two elements have similar reactivity?

- A. Bromine and Chlorine
- B. Boron and Oxygen
- C. Carbon and Nitrogen
- D. Hydrogen and Helium

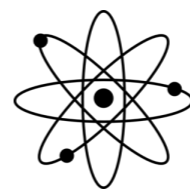
A



Which two elements have the same number of energy levels?

- A. Potassium and Magnesium
- B. Beryllium and Magnesium
- C. Carbon and Phosphorus
- D. Carbon and Oxygen

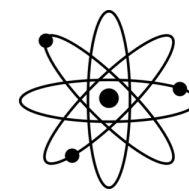
D



How are Nitrogen and Phosphorus similar?

- A. Same number of valence electrons
- B. Same number of energy levels
- C. Similar reactivity
- D. Both A and C

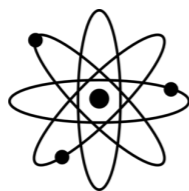
D



Which element is in group 16, period 3?

- A. Arsenic
- B. Carbon
- C. Sulfur
- D. Boron

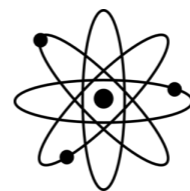
C



Which is not evidence of a chemical change?

- A. Bubbling or fizzing
- B. Unexpected temperature change
- C. Fire or smoke
- D. Phase change

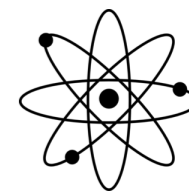
D



Two chemicals were mixed together and produced bubbles. What kind of change is happening?

- A. Physical change
- B. Chemical change
- C. Phase change
- D. None of the above

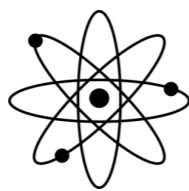
B



Which is evidence of a chemical change?

- A. Rusting
- B. Unexpected color change
- C. A precipitate was formed
- D. All of the above

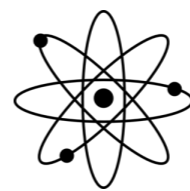
D



When a new substance is formed, what kind of change has taken place?

- A. Physical change
- B. Chemical change
- C. Phase change
- D. None of the above

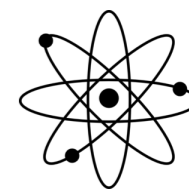
B



Which is the best example of a chemical change?

- A. A wall was painted red
- B. A piece of paper was cut into 36 pieces
- C. A bike rusted in the rain over time
- D. Ice melted and turned into water

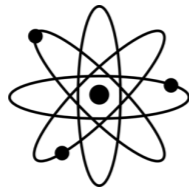
C



What is one difference between a physical and chemical change?

- A. A chemical change always has bubbles
- B. A new substance is formed in a chemical change
- C. A physical change doesn't involve atoms
- D. Physical changes only happen in the heat

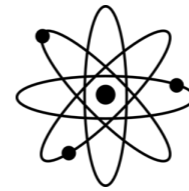
B



The process of chewing food is an example of a _____ change.

- A. Physical
- B. Chemical
- C. Elemental
- D. Atomic

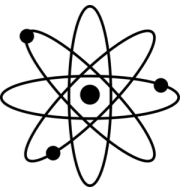
A



When you chew there are enzymes in the saliva that breakdown food in a _____ change.

- A. Physical
- B. Chemical
- C. Elemental
- D. Atomic

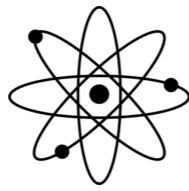
B



When your stomach muscles contract and grind food to break it down it is a _____ change.

- A. Physical
- B. Chemical
- C. Elemental
- D. Atomic

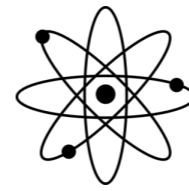
A



When stomach acid helps to break down food into smaller particles this is an example of a _____ change?

- A. Physical
- B. Chemical
- C. Elemental
- D. Atomic

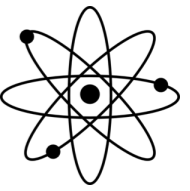
B



The process of digestion requires what kind of changes to breakdown food?

- A. Physical only
- B. Chemical only
- C. Physical and Chemical
- D. None of the above

C



Which processes are chemical changes?

- A. Enzymes in saliva that help breakdown food
- B. Chewing food to break it down
- C. Stomach acid helping to breakdown food into smaller particles
- D. Both A and C

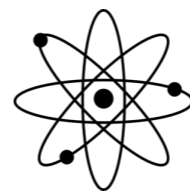
D



Which are properties of metals?

- A. Shiny luster
- B. Good conductivity
- C. Malleable
- D. All of the above

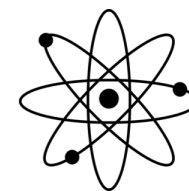
D



Which is not a property of a nonmetal?

- A. Malleable
- B. Poor conductivity
- C. Brittle or Gas
- D. Dull

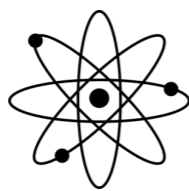
A



What is the best description for a metalloid?

- A. Malleable
- B. Mostly gas
- C. Always has a shiny luster
- D. Has properties of both metals and nonmetals

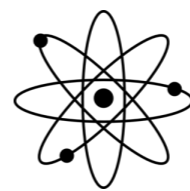
D



Use your periodic table to determine **Silicon** is a metal, nonmetal, or metalloid.

- A. Metal
- B. Nonmetal
- C. Metalloid

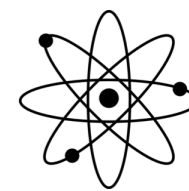
C



Use your periodic table to determine **Hydrogen** is a metal, nonmetal, or metalloid.

- A. Metal
- B. Nonmetal
- C. Metalloid

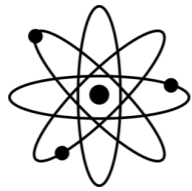
B



Use your periodic table to determine **Calcium** is a metal, nonmetal, or metalloid.

- A. Metal
- B. Nonmetal
- C. Metalloid

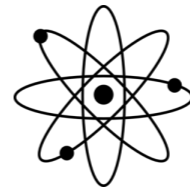
A



What is the density of an object that has a mass of 100g and a volume of 10cm^3 ?

- A. 1000 g/cm^3
- B. 100 g/cm^3
- C. 90 g/cm^3
- D. 10 g/cm^3

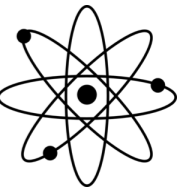
D



What is the density of an object that has a mass of 36g and a volume of 9cm^3 ?

- A. 4 g/cm^3
- B. 27 g/cm^3
- C. 324 g/cm^3
- D. 5 g/cm^3

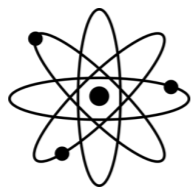
A



What is the density of an object that has a mass of 88g and a volume of 11cm^3 ?

- A. 77 g/cm^3
- B. 88 g/cm^3
- C. 888 g/cm^3
- D. 8 g/cm^3

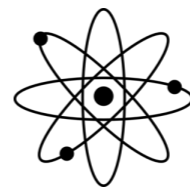
D



What is the volume of an object that has a density of 10g/cm^3 and a mass of 50g?

- A. 500 cm^3
- B. 40 cm^3
- C. 5 cm^3
- D. 5000 cm^3

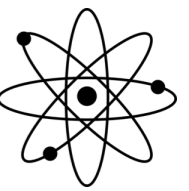
C



What is the volume of an object that has a density of 20g/cm^3 and a mass of 80g?

- A. 40 cm^3
- B. 4 cm^3
- C. 60 cm^3
- D. 100 cm^3

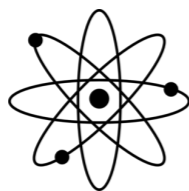
B



What is the mass of an object that has a density of 30g/cm^3 and a volume of 3cm^3 ?

- A. 90 g
- B. 10 g
- C. 33 g
- D. 27 g

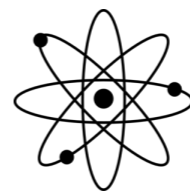
A



What is the law of conservation of mass?

- A. Mass must be conserved for survival
- B. Mass in the universe is always changing
- C. Mass needs to be conserved for energy efficiency
- D. Atoms cannot be created nor destroyed

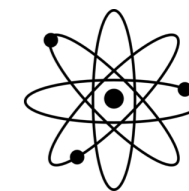
D



In a balanced equation the number of atoms in the _____ and _____ must be equal.

- A. Product, Reactant
- B. Product, Quotient
- C. Product, Sum
- D. Reactant, Reaction

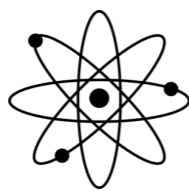
A



The group of elements and/or compounds prior to a chemical reaction are called _____.

- A. Reactions
- B. Processes
- C. Products
- D. Reactants

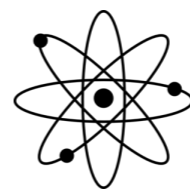
D



The group of elements and/or compounds after a chemical reaction has taken place are called _____.

- A. Reactions
- B. Processes
- C. Products
- D. Reactants

C

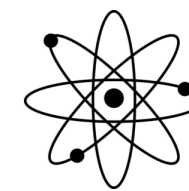


Is the equation below a balanced equation?

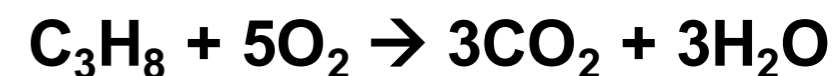


- A. Yes
- B. No

A

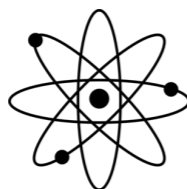
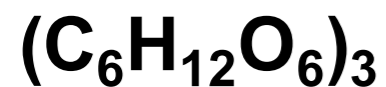


Is the equation below a balanced equation?



- A. Yes
- B. No

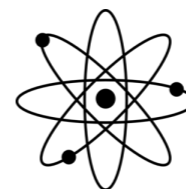
B



How many atoms of Hydrogen are in the compound above?

- A. 12
- B. 24
- C. 36
- D. 3

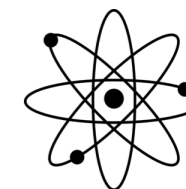
C



How many total atoms are in the compound above?

- A. 3
- B. 4
- C. 5
- D. 12

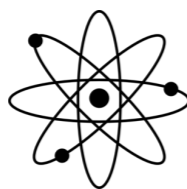
C



How many total atoms are in the compound above?

- A. 1
- B. 3
- C. 4
- D. 8

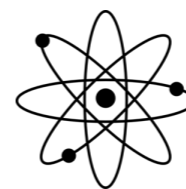
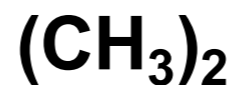
B



How many total atoms are in the compound above?

- A. 3
- B. 4
- C. 6
- D. 5

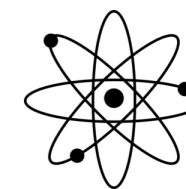
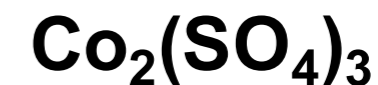
D



How many atoms of Hydrogen are in the compound above?

- A. 3
- B. 5
- C. 6
- D. 8

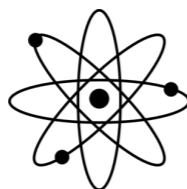
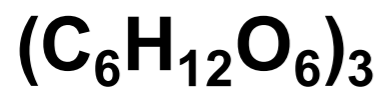
C



How many atoms of Oxygen are in the compound above?

- A. 12
- B. 14
- C. 4
- D. 3

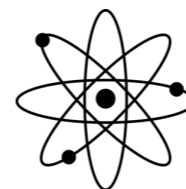
A



How many elements are in the formula above?

- A. 12
- B. 24
- C. 36
- D. 3

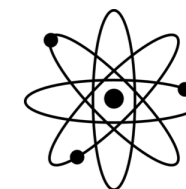
D



How many elements are in the formula above?

- A. 3
- B. 4
- C. 5
- D. 12

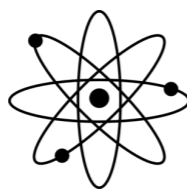
A



How many elements are in the formula above?

- A. 1
- B. 3
- C. 4
- D. 8

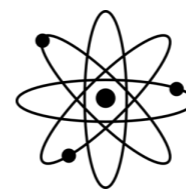
A



What is the difference between an element and a compound?

- A. Elements cannot be broken down into another substance
- B. Compounds make up all mass
- C. Elements never use capital letters and compounds do
- D. Compounds are only found in the Earth

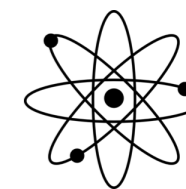
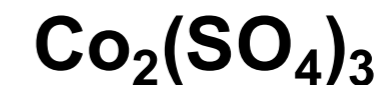
A



How many elements are in the formula above?

- A. 3
- B. 4
- C. 1
- D. 8

C



How many elements are in the formula above?

- A. 12
- B. 14
- C. 4
- D. 3

D