

Vasquez High School -- Physical Science -- Quest #6 -- S' 2015 -- 65 points

Write TRUE if the statement is true OR write the word or words that substitute(s) for the underlined word or words that would make it true. Writing false only earns partial credit. Three points apiece.

- _____ 1) Protons and neutrons have recently been discovered to be composed of electrons.
- _____ 2) Niels Bohr was responsible for the planetary model of the atom.
- _____ 3) The element symbols Au and Ag are based on the Greek names for these well-known substances.
- _____ 4) The man most responsible for the Periodic Table of the Elements was Mendeleev.
- _____ 5) In the periodic table, families of elements go left to right.

Short Answer - Fill-in. Be clear. Be neat. Be complete. Three to five points apiece.

- 16) What is Lord Rutherford famous for? _____
_____.
- 17) Isotopes are defined as _____.
- 18) The positively charged center of the atom is called its _____.
- 19) One point each. How many outer shell electrons do each of the following elements have?
_____ K _____ Si _____ Br _____ Xe _____ Sr
- 20) The plum pudding model of the atom was proposed by _____ who is also given credit for discovering the _____ around the year _____.
- 21) Give three full-name examples of metalloid elements: _____, _____ and _____.
- 22) What is periodic about the Periodic Table of the Elements? _____
_____.

Short Essay. Five points. Again, be clear and complete.

- 21) Why are the atomic mass numbers decimals? _____

_____.

Three points each.

22) Draw an electron orbit diagram for nitrogen.

23) Draw an electron dot diagram for chlorine.

Multiple Choice. Write the letter that best answers each example. Two points each.

_____ 26) The elements in the period table are arranged by

- a) atomic number b) atomic mass c) mass number d) nuclear density

_____ 27) The radioactive carbon-14 has how many neutrons?

- a) 6 b) 8 c) 14 d) 20

_____ 28) From the symbol ${}^{56}_{26}\text{Fe}$, one can tell there are _____ electrons present in this atom.

- a) 26 b) 30 c) 56 d) 82 e) none of these

_____ 29) Three moles of calcium has a mass of _____ grams.

- a) 20 b) 40 c) 60 d) 120 e) none of these

_____ 30) Sixteen grams of sulfur is approximately how many moles?

- a) 2 b) 1 c) 0.5 d) .16 e) none of these

_____ 31) The mass of a proton is approximately how many times that of an electron?

- a) 1800 b) 180 c) 18 d) 1.8 e) none of these

_____ 32) The Atomic Theory of 1803 was the brain child of an English school teacher named

- a) Archimedes b) Prince Phillip e) none of these
c) Winston Churchill d) John Dalton

_____ 33) The heaviest naturally-occurring element is

- a) hydrogen b) francium c) radon d) plutonium e) none of these