***Periodic Table Review***

**Match the vocabulary term on the left with the definition on the right.**

|  |  |
| --- | --- |
| A) Atom | 1. \_\_\_\_\_\_ Positively charged particle found in the nucleus. |
| B) Neutron | 2. \_\_\_\_\_\_ A region around the nucleus of an atom where an electron with a given energy is likely to be found. |
| C) Nucleus | 3. \_\_\_\_\_\_ Very small, very dense, positively charged center of the atom. |
| D) Proton | 4. \_\_\_\_\_ # of protons – determines identity of the atom. |
| E) Electron | 5. \_\_\_\_\_ Negatively charged particle found outside the nucleus. |
| F) Atomic Number | 6. \_\_\_\_\_ Subatomic particle with a charge of zero and a mass of 1 atm. |
| G) Mass Number | 7. \_\_\_\_\_\_ The smallest particle of an element that retains the chemical identity of that element. |
| H) Energy Level | 8. \_\_\_\_\_\_ # protons + # neutrons |

## **Use the chart to answer the following questions**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Element | Atomic Number | # of protons | # of neutrons | Mass number |
| Sodium | 11 |  | 12 |  |
| Chlorine |  | 17 |  | 35 |

29. The mass number of sodium is: A) 23 B) 22 C) 12 D) 11

30. The number of neutrons in Chlorine is: A) 35 B) 7 C) 18 D) 17

31. If chlorine had a mass number of 37, it would be a(n)

A) positive ion B) isotope C) mistake D) negative ion

9. Draw Bohr Models of the following elements.

A) Beryllium B) Chlorine

10. Draw electron dot diagrams of the following elements.

A) Sulfur B) Xenon C) Magnesium

11. On the periodic table, how do each of the following properties change as you go DOWN a group? (Increases, decreases, or stays the same)

A) Atomic Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ D) Ionization Energy \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B) Atomic Mass \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ E) Electronegativity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C) Atomic Radius \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ F) # valence electrons \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. On the periodic table, how do each of the following properties change as you go from LEFT to RIGHT across a period? (Increases, decreases, or stays the same)

A) Atomic Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ D) Ionization Energy \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

B) Atomic Mass \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ E) Electronegativity \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

C) Atomic Radius \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ F) # valence electrons \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Match the vocabulary term on the left with the definition on the right.**

|  |  |
| --- | --- |
| A) Periodic Law | 13. \_\_\_\_\_ Horizontal row |
| B) Atomic Radius | 14. \_\_\_\_\_ Distance from the center of the atom’s nucleus to its outermost electrons |
| C) Groups or Families | 15. \_\_\_\_\_ Elements with similar properties are arranged in ***vertical columns.*** |
| D) Valence Electrons | 16. \_\_\_\_\_ When elements are arranged in order of increasing atomic number, their properties show a repeating pattern. |
| E) Periods | 17. \_\_\_\_\_ Occupy the highest energy level and are largely responsible for an atom’s chemical properties. |

18. How did Mendeleev and Moseley contribute to the development of the periodic table?