

P: Unit 3 Review – The Periodic Table**Section 1: Organizing and Classifying Elements on the Periodic Table**

Directions: Using your knowledge of the periodic table, elements, and their properties, answer the following questions.

Problems

1. The vertical columns on the periodic table are called _____.
2. The horizontal rows on the periodic table are called _____.
3. Most of the elements in the periodic table are classified as _____.
4. The elements that touch the zigzag line are classified as _____.
5. The elements in the far upper right corner are classified as _____.

**** For #6, 7, 9, and 10, also write the # of and electron configuration for the valence electrons****

6. Elements in the first group have one outer shell electron and are extremely reactive. They are called _____.
7. Elements in the second group have 2 outer shell electrons and are also very reactive. They are called _____.
8. Elements in groups 3 through 12 have many useful properties and are called _____.
9. Elements in group 17 are known as “salt formers”. They are called _____.
10. Elements in group 18 are very unreactive. They are said to be “inert”. We call these the _____.

****Skipped #11-12****

13. The number of protons in an atom is that element's _____ number.
14. The number of protons and neutrons in an atom is that atom's _____ number.
15. The ability of a material to be drawn into a thin wire is called _____.
16. The ability of a material to be pounded into thin sheets is called _____.

Directions: Circle the correct answer.

Set 1

1. Lowest electronegativity	Be	Ca	Sr	Ra
2. Highest ionization energy	Cs	W	Pb	At
3. Highest atomic radius	Na	Al	P	Cl
4. Lowest atomic radius	V	Ga	Se	Br
5. Highest ionization energy	Be	Mg	Sr	Ba
6. Highest electronegativity	O	S	Se	Te
7. Highest atomic radius	Nb	Al	Cl	Fr
8. Lowest ionization energy	O	Al	Mn	Cs
9. Highest atomic radius	K	V	Ga	Br
10. Lowest ionization energy	Li	K	Cs	Fr
11. Highest electronegativity	Cl	K	Te	Cs
12. Highest atomic radius	Rb	Ag	Sn	Xe
13. Highest electronegativity	Be	Mg	Sr	Ba
14. Highest atomic radius	N	Si	Fe	Rb
15. Lowest electronegativity	O	Ge	Mo	Ba
16. Highest ionization energy	F	Cl	I	At
17. Lowest atomic radius	N	As	Sb	Bi
18. Lowest ionization energy	N	P	Sb	Bi

Set 2

1. Highest atomic radius	Be	Ca	Sr	Ra
2. Lowest atomic radius	Cs	W	Pb	At
3. Highest electronegativity	Na	Al	P	Cl
4. Lowest ionization energy	V	Ga	Se	Br
5. Highest atomic radius	Be	Mg	Sr	Ba
6. Highest electronegativity	O	S	Se	Te
7. Highest ionization energy	Nb	Al	Cl	Fr
8. Lowest ionization energy	O	Al	Mn	Cs
9. Highest ionization energy	K	V	Ga	Br
10. Lowest atomic radius	Li	K	Cs	Fr
11. Highest electronegativity	Cl	K	Te	Cs
12. Highest ionization energy	Rb	Ag	Sn	Xe
13. Highest electronegativity	Be	Mg	Sr	Ba
14. Highest atomic radius	N	Si	Fe	Rb
15. Lowest atomic radius	O	Ge	Mo	Ba
16. Highest ionization energy	F	Cl	I	At
17. Lowest atomic radius	N	As	Sb	Bi
18. Lowest ionization energy	N	P	Sb	Bi

Section 3: Putting it all together*Directions: Using your notes and classwork, answer the following questions.***Periodic Table Parts & Trends**

Describe the following t.

1. The atomic radius _____ across a period and _____ a group.
2. Ionization energy _____ across a period and _____ down a group.
3. Electronegativity _____ across a period and _____ down a group.
4. Identify the lowest EN: Li K Rb Cs
5. Identify the highest AR: Ca Ge Se Kr
6. Identify the lowest IE: Na Ga Se Br
7. The element that is an alkali in the 2nd period: _____
8. What is the group name of elements in the 17th group? _____
9. Identify the element in the noble gas group and in the 1st period: _____
10. On the periodic table below label the following parts: *noble gases, halogens, alkali metals, alkaline earth metals, metals, transition metals, inner-transition metals, nonmetals, dividing line, group numbers & period numbers.* ****you should also know the s, p, and d blocks!****

