

1. What is the most nonmetallic element on the periodic table?
2. What is the most metallic element on the periodic table?
3. Circle the most metallic of these three elements. Zinc Copper Iron
4. Circle the most non metallic of these three elements Aluminum Fluorine Sulfur
5. What is the technical name of the group 2 metals? _____
6. What is the name of the group 17 nonmetals? _____
7. What are the group 1 metals also known as? _____
8. How many elements are in group 3? _____
9. List the symbols of ALL of the non metals: _____
10. List the symbols of ALL of the metalloids: _____
11. The number of metals on the Periodic Table is $118 - 22 =$ _____
12. Name five metallic properties
13. Name five nonmetallic properties
14. Groups 2-12 (and the “triangle” of metals from Al to Tl to Po) make up what are known as the _____ metals
15. Silicon is a metalloid. What is a metalloid?
16. Antimony is also a metalloid; what is a metalloid?
17. How many protons, neutrons and electrons are in the element with the greatest density on the table?
18. What is the mass of the most common isotope of the element tantalum? _____ amu

1. Define 1st Ionization Energy.
2. What this the GROUP TREND for 1st Ionization energy going down any group?
3. What is the PERIOD TREND for 1st Ionization energy going across any period?
4. What atoms have the highest 1st Ionization energy and WHY?
5. Define Electronegativity.
6. Define relative scale.
7. Define arbitrary scale.
8. Which element has the highest EN value? What does that mean about this atom?
9. Which part of the periodic table tends to have the highest EN values? Why?
10. Which part of the periodic table tends to have very low EN values? Why?

Trends of the Periodic Table Homework # 4 name: _____

1. Which is bigger or smaller, the Na Atom or the Na^{+1} cation? Say it in a sentence.
2. Which is bigger or smaller, the Mg Atom or the Mg^{+2} cation? Say it in a sentence.
3. Which is bigger or smaller, the Al Atom or the Al^{+3} cation? Say it in a sentence.
4. Which is bigger or smaller, the N Atom or the N^{-3} anion? Say it in a sentence.
5. Which is bigger or smaller, the O Atom or the O^{-2} anion? Say it in a sentence.
6. Which is bigger or smaller, the F Atom or the F^{-1} anion? Say it in a sentence.
7. Why are cations smaller than their atoms, and anions larger than their atoms - all of the time?
8. State the GROUP TREND for cation size. Full sentence only for credit.
9. State the PERIOD TREND for cation size. Full sentence only for credit.
10. State the GROUP TREND for anion size. Full sentence only for credit.
11. State the PERIOD TREND for anion size. Full sentence only for credit.