SNC2D – Chemistry Unit Periodic Table Review Questions Name:_____

1. Find Gallium on the Periodic Table:
   A) How many electrons in an atom of Gallium?_____

   B) How many neutrons in an atom of Gallium?_____

   C) How many electron shells does a Gallium atom have?_____

   D) How many electrons in the valence shell of a Gallium atom?_____

   E) Write the symbol for the ion that you would expect Gallium to form._____

2. Name the element:
   A) This element has two electrons in its outer orbit, and it belongs to the second period._____

   B) This element's most common isotope has a mass number of four and two neutrons per atom._____

   C) This element has eight electrons in its outer orbit, which is the second orbit. _____

   D) The outermost electrons of this element lie in the fourth orbit, and it has chemical properties similar to magnesium. _____

   E) This element has four electrons in its outermost orbit, and it has the smallest atomic mass of the elements in its group._____

   F) This element's outermost electrons lie in the second orbit, and it is the most reactive non-metal in its period. _____

   G) This element is the most reactive metal of the top four elements in its group, and it has chemical properties similar to lithium._____

3. Explain why lithium, sodium and potassium are almost never found in the pure state in nature.

4. Which subatomic particle has a positive charge? Negative charge? No charge?

5. What subatomic particles are located in the nucleus? Around the nucleus?

6. Why is the number of electrons in the valence shell of an atom important?

7. What number is equal to the number of protons in the atom?

8. How do you calculate the number of neutrons in an atom?

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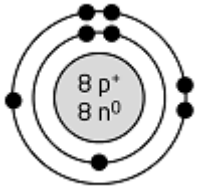
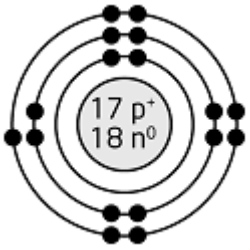
9. Identify the element represented in each Bohr-Rutherford diagram.

A) 

B) 

10. Answer the following questions:

A) How many electrons are in a neutral atom of lithium?_____

B) How many neutrons are in an atom of Mg-25?_____

C) What is the mass number of an atom with 5 protons and 7 neutrons?_____

D) How many electrons are in O^{2-}?_____

E) How many electrons are in Mg^{2+}?_____

11. Write the name and atomic number of three elements that have completely filled valence shells.

12. For each of the following, identify the element from the description of its location on the period table:

A) Period 1, group 18 _____

B) Period 3, group 2 _____

C) period 4, group 17 _____

D) period 2, group 16 _____

13. A) Which period contains the highest number of non-metals?_____

B) What are the names of the non-metallic elements in this period?_____

C) Which group contains the highest number of non-metals?_____

14. **Periodic Table Puns:**

A) Not an exciting person:_____
B) Part of a whole:_____
C) A very smart person:_____
D) Someone who loves computers:_____
E) A "prize" element:_____
F) Mickey's Pal:_____
G) What you do in a play:_____
H) Your brother or mine:_____