Honors Chemistry Hour\_\_\_\_\_ Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
Dr. Wexler  
Basic Atomic Structure Practice Quiz 2  
Date assigned:

**Atomic Structure**

1. What does the atomic number of an element represent?

2. What is the atomic number of iron?

3. How many protons are in an iron atom?

4. What is the charge (sign and magnitude) of the nucleus of an iron atom?

5. How many electrons are in an iron atom?

6. What is the net charge of an iron atom?

7. If you removed three electrons, what would be the net charge of the iron atom?

8. Write both versions of the symbol for the isotope of iron having 29 neutrons

A.

B.

9. Which has more mass – an atom of iron or an atom of carbon? How do you know from the Periodic Table?

10. In general, what are isotopes of an element?

11. Explain why the mass number of an isotope different from the atomic mass of the element as listed on the periodic table?

12. Calculate the average atomic mass of element Zm (for Zombie) if Zm has an atomic number of 119 and the % abundance of its three isotopes are Zm-333 (48%), Zm-334 (28%), and Zm-335 (24%).

13. Explain why the atomic number is the same as the number of electrons only if the atom is neutral.

14. What is a cation and how is it formed?

15. What is an anion and how is it formed?

16. Why do most atoms ionize?

17. Will aluminum gain or lose electrons when it ionizes? How do you know?

18. Draw a detailed Bohr model for Oxygen and the abbreviated Bohr model for Oxygen

Detailed Abbreviated

16. Draw a Bohr model for the ion of oxygen which has gained two electrons. What is the charge on the ion? What is this type of ion called?

17. Draw a Bohr model for the ion of magnesium which has lost two electrons. What is its charge? What is this type of ion called?