ATOMIC STRUCTURE WORKSHEET

Answer the following questions:

1. What does the atomic number represent?
2. Can any two different elements ever have the same atomic number?
3. Which element has the most protons? Boron, Chlorine, or Potassium?
4. Why are mass numbers not whole numbers?
5. How can one find the number of neutrons in an element?

Fill out the following. In the space to the right draw a Bohr model for each atom. Make sure to label each atom.

Symbol: _____ # Protons _____

Helium Atomic Number: _____ # Electrons _____

Atomic Mass: _____ # Neutrons _____

Symbol: _____ # Protons _____

Carbon Atomic Number: _____ # Electrons _____

Atomic Mass: _____ # Neutrons _____

Symbol: _____ # Protons _____

Potassium Atomic Number: _____ # Electrons _____

Atomic Mass: _____ # Neutrons _____

Symbol: _____ # Protons _____

Oxygen Atomic Number: _____ # Electrons _____

Atomic Mass: _____ # Neutrons _____

Symbol: _____ # Protons _____

Sodium Atomic Number: _____ # Electrons _____

Atomic Mass: _____ # Neutrons _____

Boron

Symbol: _____ # Protons _____
Atomic Number: _____ # Electrons _____
Atomic Mass: _____ # Neutrons _____

Sulfur

Symbol: _____ # Protons _____
Atomic Number: _____ # Electrons _____
Atomic Mass: _____ # Neutrons _____

Complete the following table. If the charge is not given on the nuclear symbol or the number of protons and electrons are not given, assume the substance is a neutral atom. If the atomic mass of the atom is not given on the nuclear symbol, or atomic mass is not given in the column, or the number of protons and neutrons is not given, then assume it is the most common isotope and round the mass from the periodic table.

Symbol	Atomic Number	Mass Number	Number of Protons	Number of Electrons	Number of Neutrons
^{23}Na					
K		40		19	
			38	38	52
F					10
	20	41		20	
	50			50	72
^{131}I	53				
^{26}Mg			12		
		109	47	47	
	1	2		1	
^{36}S	16				
	26			26	32

^{27}Al					
	2	4		2	
Cr		53			