

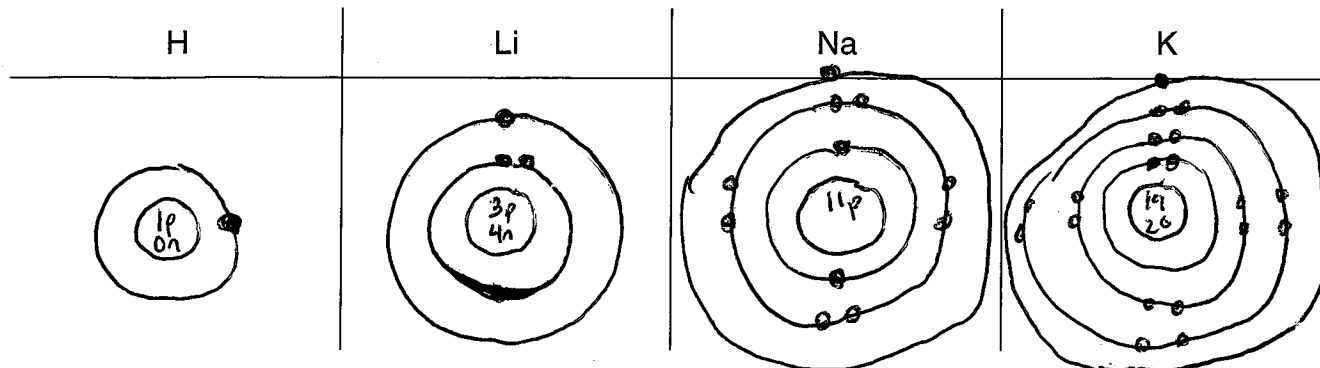
Worksheet – Bohr Models

Name: _____ Date: _____ Block: _____

Make sure to write the symbol and atomic number (# of protons and neutrons) for each model in the space provided. You will need to use your periodic table to find the atomic number.

Bohr Models 1

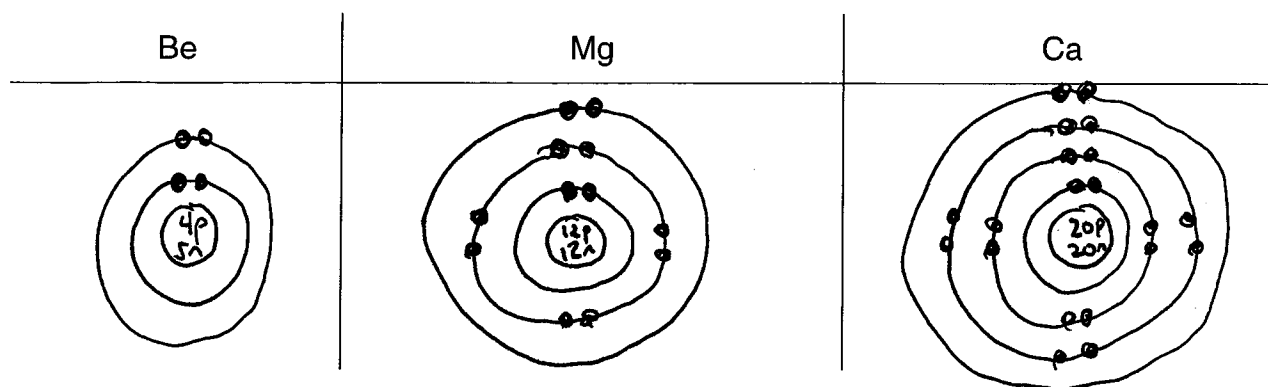
In the spaces provided, draw Bohr model diagrams for the following elements:



1. What is the atomic number for H? 1 Li? 3 Na? 11 K? 19
2. In what family or group can you find Li, Na, and K? alkali
3. In what ways are the Bohr model diagrams for these metals similar?
outer valence has only 1 electron for a -1 electrical charge.

Bohr Models 2

In the spaces provided, draw Bohr model diagrams for the following elements:

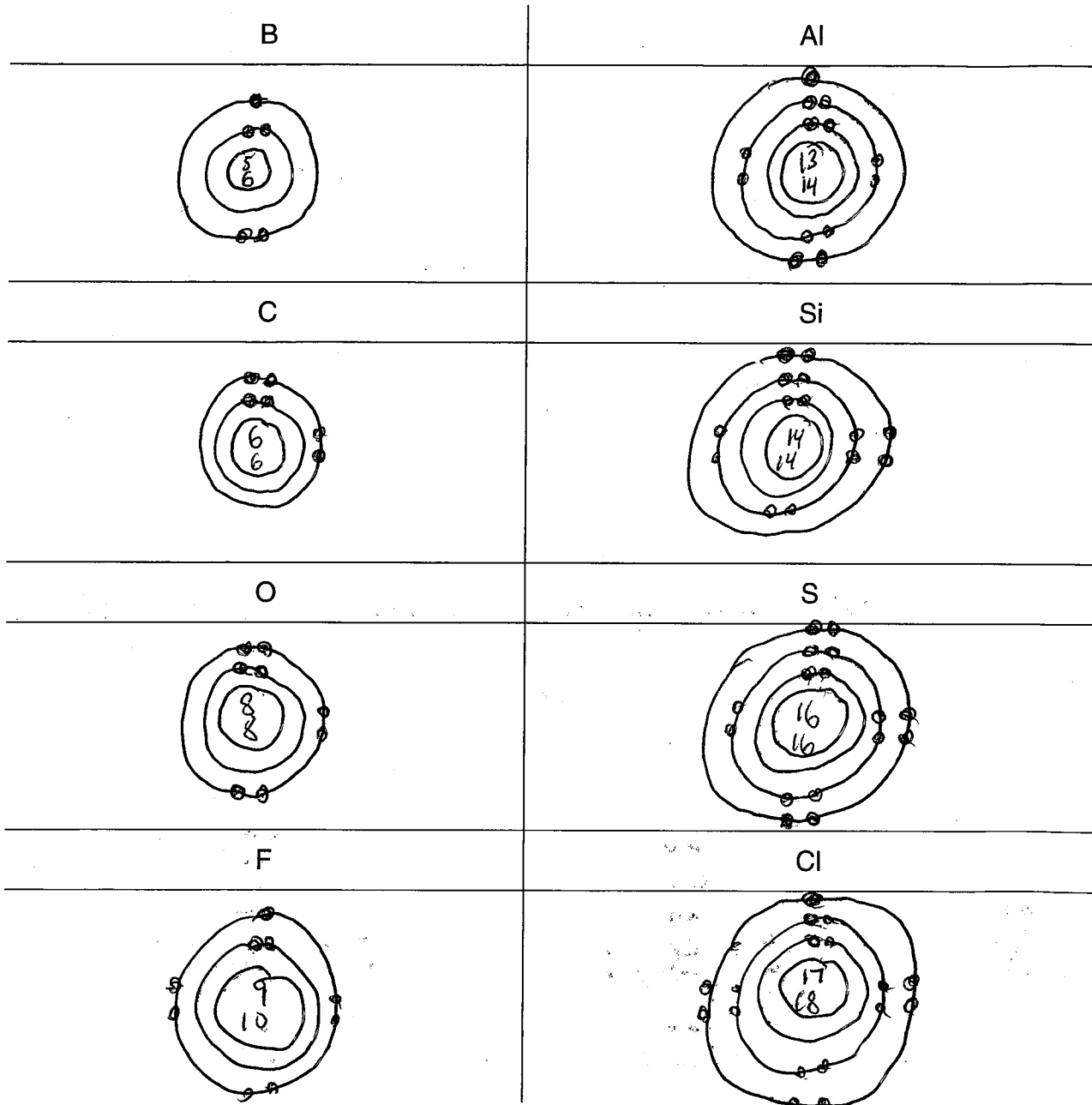


1. What is the atomic number for Be? 4 Mg? 12 Ca? 20
2. What family or group can you find Be, Mg, and Ca? alkali earth metals
3. In what ways are the Bohr model diagrams for these metals similar?
outer valence has 2 electrons for a -2 electrical charge.

Bohr Models 3

In the spaces provided, draw Bohr model diagrams for the following pairs of elements:

- (B, Al); (C, Si); (O, S); (F, Cl)



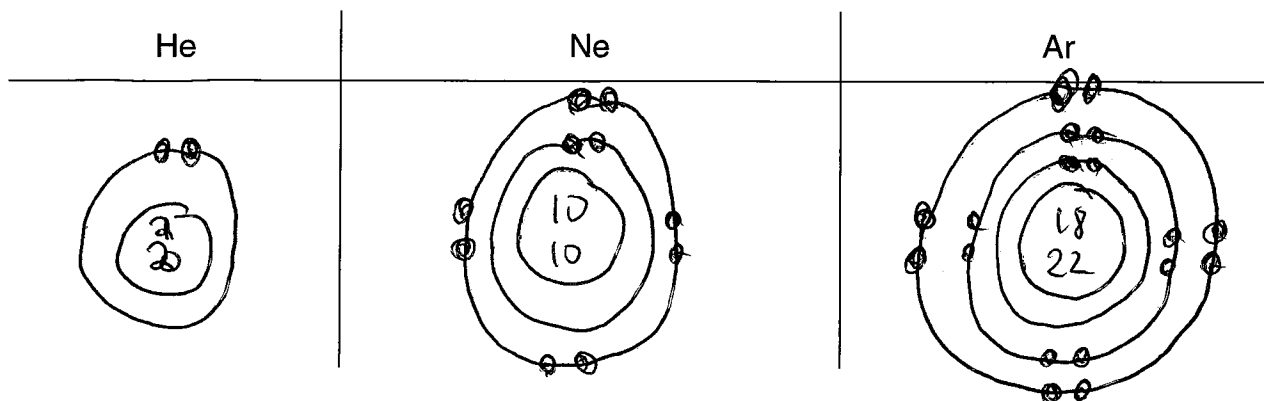
1. What is the atomic number for B? 5 Al? 13 C? 6
 Si? 14 O? 8 S? 16 F? 9 Cl? 17

2. In general, in what ways are the Bohr model diagrams for the same family similar?
they contain the same # of electrons in their valence shell

Bohr Models 4

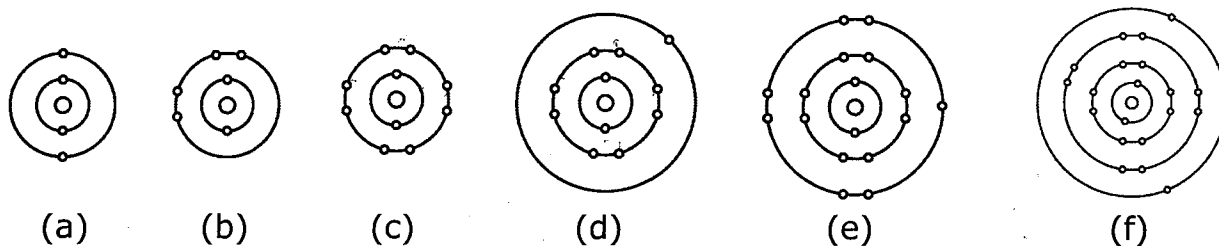
In the spaces provided, draw Bohr model diagrams for the following elements:

- He, Ne, Ar



1. What is the atomic number for He? 2 Ne? 10 Ar? 18
2. What family or group can you find He, Ne, and Ar? NOBLE GASES
3. In what ways are the Bohr model diagrams for this family similar? same # of electrons in valence shell
4. Do these elements want to gain or lose any electrons? Why or why not? no, because their valence shell is a stable octet

Identify the elements whose Bohr model diagrams are shown below. Write the names of the elements in the spaces provided.



- (a) Be
- (b) C
- (c) Ne
- (d) Na
- (e) Cl
- (f) Ca

