Unit 4 problem set 1

1. Write the electron configuration for the following elements:
2. Be
3. Mg
4. Al
5. O
6. S
7. Draw the dot structure for the elements listed in number 1.

a.

b.

c.

d.

e.

1. Look at the periodic table. What is the pattern of a-b and d-e in number 2 above?
2. Draw the ionic bond using electron configuration between Mg and S using electron configuration notation. Please use arrows to show electron transfer and label charges on the ions formed.
3. Draw the ionic bond using Lewis dot structure between Mg and S. Please use arrows to show electron transfer and label charges on the ions formed.
4. What noble gas did each ion become in number 5?
5. Draw the ionic bond using electron configuration between Na and N using electron configuration notation. Please use arrows to show electron transfer and label charges on the ions formed.
6. Draw the ionic bond using Lewis dot structure between Na and N. Please use arrows to show electron transfer and label charges on the ions formed.
7. What noble gas did each ion become in number 8?

10. How do metals and nonmetals become ions? Be specific.