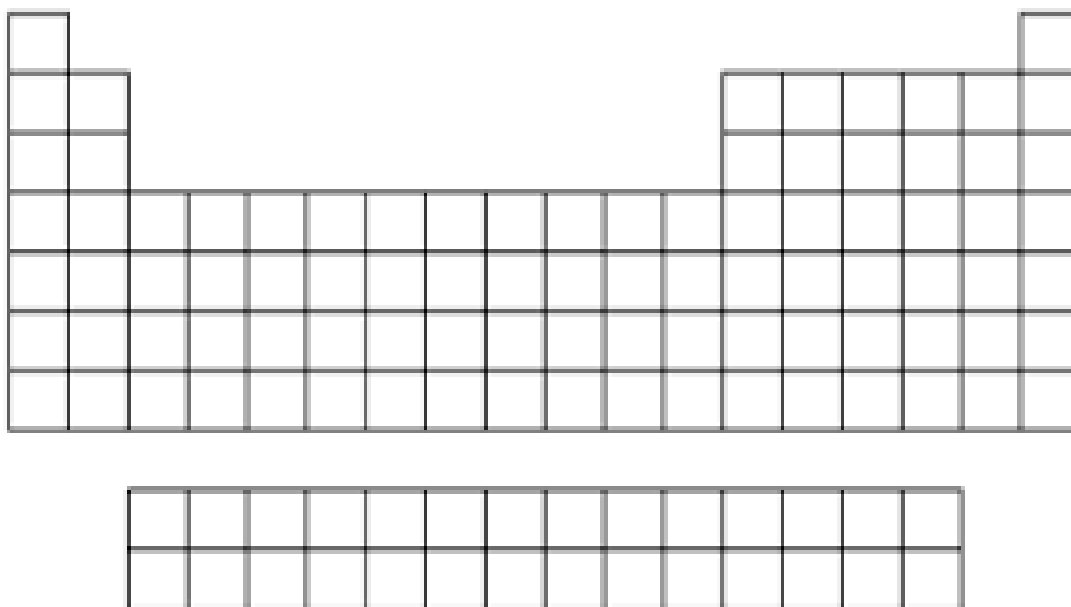


**Review sheet**

1. Label how the following increase: atomic radius, electronegativity, ionization energy, metal reactivity and nonmetal reactivity.



2. Determine the period the following elements are located in?

- a) Sulfur
- b) Barium

3. Put the following in order of increasing atomic radius:

- a. Cu, As, Fe, Ti
- b. K, Na, Rb, Fr
- c. Au, Ag, Cu,

4. State the group name and describe their properties for group 1, group 2, group 18 and group 17.

Group Number	Group Name	Properties
Group 1		
Group 2		
Group 17		
Group 18		

6. Identify the elements below as metals, non-metals or metalloids

- a. Silicon
- b. Sulfur
- c. Palladium
- d. Strontium
- e. Antimony
- f. Arsenic

7. Identify the charges (oxidation number) with the positive or negative sign for the following.

- a. Calcium
- b. Iodine
- c. Neon
- d. Oxygen

8. Put the following elements in order of decreasing electronegativity

- a. F, Be, Li, C
- b. Mg, Ra, Sr, Ba

9. What is electronegativity?

10. Put the following elements in order of increasing ionization energy.
- a) Kr, Ca, K, Br
  - b) C, Ge, Pb, Sn
11. Periods on the periodic table represent the number of \_\_\_\_\_.
12. Name how many electrons can be held in the following sublevels?
- a. s
  - b. p
  - c. d
13. List an example for each of the following (just use symbols):
- |                      |                       |
|----------------------|-----------------------|
| metalloid:           | transition metal:     |
| very reactive metal: | stable nonmetal:      |
| group 16:            | actinides:            |
| p-block element:     | alkaline earth metal: |

14. Write the full, orbital, noble gas electron configurations and Lewis dot diagram for the following substances:

Element	Electron Configuration	Noble gas Configuration	Orbital Diagram	Lewis Dot Diagram
Arsenic				
Magnesium				

15. Which type of wave has more energy than infrared but less energy than x-rays?

16. How are wavelength and frequency related ?

17. In each of the following pairs, circle the one with a longer wavelength:
- a. Violet or green
  - b. Infrared or visible
  - c. Ultraviolet or gamma
  - d. Radio or x-rays
  - e. Green or microwaves

18. Using the Bohr model, predict the color of light emitted when the following drop occurs:

- a.  $n = 6$  to  $n = 2$
- b.  $n = 3$  to  $n = 2$

19. Using the Bohr model, determine the wavelength and type of energy released when the following drop occurs:

	Type of Energy	Wavelength
a. $n = 2$ to $n = 1$	_____	_____
b. $n = 3$ to $n = 2$	_____	_____
c. $n = 6$ to $n = 3$	_____	_____