Unit 4 Periodic Table Review Answers

Chem 332 – O’Dette

1. Names
   1. period
   2. family or group
2. Elements
   1. 18
   2. 32
3. a
4. Ag
5. c
6. alkali metal = Li, halogen = F
7. noble gas = Rn, alkaline earth metal = Ra
8. Cs
9. Br
10. Ne, period=2, Group=18 ; Ar, period=3, Group=18 ; Kr, period=4, Group=18
11. Name
    1. Lanthanides
    2. Actinides
12. loses electrons, forms (+) ions, silver, shiny, base in water, conductive, malleable
13. gains electrons, forms (-) ions, colored, dull, acid in water, nonconductive, brittle
14. has some properties of both metals and nonmetals; B, Si, Ge, As, Sb, Te, Po, At
15. a, c, d
16. Na = metal, B = metalloid, Si = metalloid, Br = Non, C = Non, Al = metal, Sn = metal
17. Valence electrons
    1. 6
    2. 2
    3. 3
    4. 5
18. Relationship
    1. As charge increases across a period, atomic radius decreases.
    2. As # of energy levels increases, atomic radius increases
19. Atomic radius
    1. generally decreases
    2. generally increases
20. Change
    1. It increases with atomic #
    2. It increases with atomic #
    3. more energy levels of electrons
21. Atomic radius
    1. S
    2. K
22. It increases as you move right across the period.
23. They are high because they have stable configurations
24. S
25. Na, Ca, Al, O, F
26. K, Na, Br, Cl