

B.15

23

p160 #4,6 p167 #12, 14, 15 p181-182 #28-30, 32, 33, 48, 51, 54

4. metal, nonmetal, metalloid

6a metal

b. metalloid

c nonmetal

d metal

12. same valence e^-

14. Cu, Cd, Au, Co

15. S

28a non

b. non

c metal

d. non

e. metal

29. have a mixture of metal & nonmetal properties, so the group doesn't have consistent properties

30. alkali: column 1 alkaline: 2 halogens: 17 noble: 18

32. He

33. a

34a c

b. Ce

c. Ne, P, Br

d. Bi

51. nonmetals because IE increases going

54. need to have same valence e^- in same column for the properties to be similar