Answers To Topic 5

Review Questions

1. 1	**2.** 2	**3.** 2
4. 4	**5.** 2	**6.** 2
7. 4	**8.** 2	**9.** 3
10. 1	**11.** 1	**12.** 4
13. 3	**14.** 3	**15.** 1
16. 4	**17.** 3	**18.** 3
19. 1	**20.** 4	**21.** 3
22. 1	**23.** 3	**24.** 3
25. 3	**26.** 3	**27.** 2
28. 4	**29.** 2	**30.** 4
31. 1	**32.** 3	**33.** 4
34. 1	**35.** 4	**36.** 4
37. 1	**38.** 2	**39.** 1
40. 4	**41.** 3	**42.** 1
43. 4	**44.** 2	**45.** 1
46. 2	**47.** 1	**48.** 4
49. 1	**50.** 1	**51.** 2
52. 4	**53.** 4	**54.** 3
55. 2	**56.** 2	**57.** 3
58. 3	**59.** 2	**60.** 1
61. 3	**62.** 3	**63.** 1
64. 1	**65.** 3	**66.** 1
67. 2	**68.** 2	**69.** 4
70. 1	**71.** 1	**72.** 3
73. 1	**74.** 2	

75. The second electron lost from magnesium is the only electron in the valence level. A second electron lost from sodium must come from a stable, complete valence level.

76. Both the sodium ion and neon have ten electrons, but the sodium ion has an additional proton to attract the electrons.

77. $I_2 + H_2O \rightarrow HIO + H^+ + I^-$

78. The vertical columns of the table should have elements with similar chemical properties. If the elements were arranged by atomic mass, several pairs of elements, such as Ar and K, would be out of position in regards to properties.

79. Both groups follow the octet rule. Group 1