

Electron Configuration Practice

Name: _____

General Chemistry

Date: _____ Hour _____

Write the complete electron configuration & identify the number of valence electrons for each of the following atoms. Assume all atoms are neutral in charge.

1) Lithium (Li) = _____ No. of valence electrons: _____

2) Nitrogen (N) = _____ No. of valence electrons: _____

3) Silicon (Si) = _____ No. of valence electrons: _____

4) Hydrogen (H) = _____ No. of valence electrons: _____

5) Magnesium (Mg) = _____ No. of valence electrons: _____

6) Carbon (C) = _____ No. of valence electrons: _____

Use the electron configuration to identify the element name and identify the number of valence electrons for each of the following atoms. Assume all atoms are neutral in charge.

7) $1s^2 2s^2 2p^4$ = _____ No. of valence electrons: _____

8) $1s^2 2s^2 2p^6 3s^1$ = _____ No. of valence electrons: _____

9) $1s^2$ = _____ No. of valence electrons: _____

10) $1s^2 2s^2 2p^6$ = _____ No. of valence electrons: _____

11) $1s^2 2s^2 2p^6 3s^2 3p^5$ = _____ No. of valence electrons: _____

12) $1s^2 2s^2 2p^6 3s^2 3p^3$ = _____ No. of valence electrons: _____

Write the electron configuration & identify the number of valence electrons for each of the following atoms. Assume all atoms are neutral in charge.

13) Potassium (K) = _____ No. of valence electrons: _____

14) Iron (Fe) = _____ No. of valence electrons: _____

15) Gallium (Ga) = _____ No. of valence electrons: _____

16) Bromine (Br) = _____ No. of valence electrons: _____

17) Strontium (Sr) = _____ No. of valence electrons: _____

18) Argon (Ar) = _____ No. of valence electrons: _____

Use the electron configuration to identify the element name and identify the number of valence electrons for each of the following atoms. Assume all atoms are neutral in charge.

19) $1s^2 2s^2 2p^5$ = _____ No. of valence electrons: _____

20) $1s^2 2s^2 2p^6 3s^2 3p^1$ = _____ No. of valence electrons: _____

21) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^3$ = _____ No. of valence electrons: _____

22) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10}$ = _____ No. of valence electrons: _____

23) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^1$ = _____ No. of valence electrons: _____

24) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^6$ = _____ No. of valence electrons: _____