

Name : \_\_\_\_\_ Date : \_\_\_\_\_

Score : \_\_\_\_\_

## Electron Configuration Practice Worksheet

1. Write down the abbreviated ground state electron configuration for each neutral atom.

Be: \_\_\_\_\_

Ne: \_\_\_\_\_

Al: \_\_\_\_\_

N: \_\_\_\_\_

Si: \_\_\_\_\_

Cl: \_\_\_\_\_

K: \_\_\_\_\_

Br: \_\_\_\_\_

Mo: \_\_\_\_\_

In: \_\_\_\_\_

Ba: \_\_\_\_\_

Au: \_\_\_\_\_

Pb: \_\_\_\_\_

Ra: \_\_\_\_\_

Eu: \_\_\_\_\_

2. Write down the unabbreviated ground state electron configuration of the following elements.

i. Sodium \_\_\_\_\_

ii. Phosphorous \_\_\_\_\_

iii. Potassium \_\_\_\_\_

iv. Zinc \_\_\_\_\_

v. Krypton \_\_\_\_\_

vi. Zirconium \_\_\_\_\_

vii. Iodine \_\_\_\_\_

viii. Cesium \_\_\_\_\_

ix. Platinum \_\_\_\_\_

x. Francium \_\_\_\_\_



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# Electron Configuration Practice Worksheet

## Answers

1. Write down the abbreviated ground state electron configuration for each neutral atom.

Be:  $[\text{He}] 2s^2$ Ne:  $[\text{He}] 2s^2 2p^6$ Al:  $[\text{Ne}] 3s^2 3p^1$ N:  $[\text{He}] 2s^2 2p^3$ Si:  $[\text{He}] 3s^2 3p^2$ Cl:  $[\text{He}] 3s^2 3p^5$ K:  $[\text{Ar}] 4d^1$ Br:  $[\text{Ar}] 4s^2 3d^2 4p^5$ Mo:  $[\text{Kr}] 5s^1 4d^5$ In:  $[\text{Kr}] 5s^2 4d^{10} 4p^1$ Ba:  $[\text{Xe}] 6s^2$ Au:  $[\text{Xe}] 6s^1 4f^{14} 5d^{10}$ Pb:  $[\text{Xe}] 6s^2 4f^4 5d^{10} 6p^2$ Ra:  $[\text{Rn}] 7s^2$ Eu:  $[\text{Xe}] 6s^2 4f^7$ 

2. Write down the unabbreviated ground state electron configuration of the following elements.

i. Sodium  $1s^2 2s^2 2p^6 3s^1$ ii. Phosphorous  $1s^2 2s^2 2p^6 3s^2 3p^3$ iii. Potassium  $1s^2 2s^2 2p^6 3s^2 3p^6 4s^1$ iv. Zinc  $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10}$ v. Krypton  $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6$ vi. Zirconium  $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^2$ vii. Iodine  $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^5$ viii. Cesium  $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^6 6s^1$ ix. Platinum  $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^6 6s^2 4f^{14} 5d^8$ x. Francium  $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^{10} 5p^6 6s^2 4f^{14} 5d^{10} 6p^6 7s^1$