

Electron Notation WS 2

Name _____ Per _____

Electron Configuration Practice Worksheet

In the space below, write the unabbreviated electron configurations of the following elements:

1. sodium _____
2. magnesium _____
3. iron _____
4. potassium _____
5. selenium _____

In the space below, write the abbreviated electron configurations of the following elements:

6. cobalt _____
7. silver _____
8. tellurium _____
9. radium _____
10. lawrencium _____

Determine what elements are denoted by the following electron configurations:

11. $1s^2 2s^2 2p^6 3s^2 3p^4$ _____
12. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^1$ _____
13. $[\text{Kr}] 5s^2 4d^{10} 5p^3$ _____
14. $[\text{Xe}] 6s^2 4f^{14} 5d^6$ _____
15. $[\text{Rn}] 7s^2 5f^{11}$ _____

Explain what is wrong with the following electron configurations:

16. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 4d^{10} 4p^6$
17. $1s^2 2s^2 2p^6 3s^3 3d^5$

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Chemistry I Practice - "Electron Configurations"

Use the following electron configurations and your periodic table to identify the element:

1. $1s^2 2s^2 2p^6 3s^2 3p^5$ 2. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2$ 3. $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^1$

4. Describe the method that you used to solve problems 1 - 3. Be specific.

Use the following clues to identify the element. Show any figuring in the space below.

5. This element has a 3p sublevel that contains 3 electrons.
6. This element has a 4s sublevel with 2 electrons for its outermost electrons.
7. This element has 1 electron in its 3d sublevel.
8. This element has 5 electrons in its 5p sublevel
9. This element has a completely filled 3p sublevel for its outermost electrons.
10. This element has 2 electrons in its 6p sublevel.