

Name: _____

Period: ____ Subject: _____

Date: _____

Electron Configuration

1. List the entire aufbau sequence of orbitals (from **1s** to **7p**).
2. Write out the electron configuration (longhand version) for the element **oxygen**.
3. Write out the electron configuration (longhand version) for the element **iron**.
4. Write out the electron configuration of **gold** using noble-gas notation (the shorthand method).
5. Write out the electron configuration of **praseodymium** (element #59) using noble-gas notation.
6. Which element has the electron notation **$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^{10} 4p^6 5s^2 4d^2$** ?
7. Which element has the electron configuration **$[\text{Kr}] 5s^2 4d^2$** ?
8. Name an ion with the electron configuration **$1s^2 2s^2 2p^6 3s^2 3p^6$** .
9. Write out the electron configuration for a **bromine** ion (longhand notation).
10. Which of the following orbitals has the lowest energy level: **6s 5d 4f 5p**