Isotopes, Rules/Principles, Electron Configurations, Orbital Diagrams Practice

Provide the isotope formula for each of the following, showing the mass number, the atomic number, and the symbol of the element:

- 1. lead with 129 neutrons
- 2. lithium with 4 neutrons
- 3. technetium with 56 neutrons

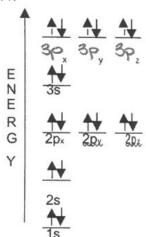
State each of the following principles or rules in complete sentences:

- 4. Aufbau Principle
- 5. Hund's Rule
- 6. Pauli Exclusion Principle

State the name of the element represented by each of the following electron configurations or orbital diagram:

- 8. $[A_{\rm c}]4s^23d^{10}4p^2$
- 9. [Rn]7s²5f¹⁴6d¹
- 10. 1s²2s²2p⁶3s²3p⁶4s²3d¹⁰4p⁶5s¹4d¹⁰

11.



Give the shorthand electron configuration of each of the following elements:

- 12. tellurium
- 13. bohrium
- 14. chromium
- 15. Give the longhand electron configuration of sulfur, and give the complete orbital diagram of sulfur.