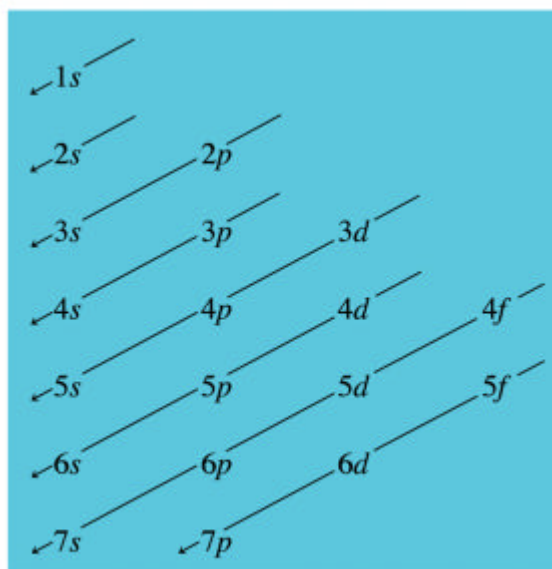


Electronic configurations

Name: _____

Electronic structure stated using the s , p , d , f notations are called electronic configurations. Electrons are assigned to these subshells for an atom or ion of an element using the Aufbau Principle.

Define Aufbau Principle _____



The scheme above summarizes the order. Determine electronic configurations for the following elements and ions.

| | | | | | |
|-----------|----|--------|----|-----------|----------|
| H | He | Li | Be | B | |
| C | | N | | O | F |
| Ne | | Na | | Mg | Al |
| P | | S | | Cl | Ar |
| P^{3-} | | Na^+ | | Mg^{2+} | O^{2-} |
| Cu | | | | Fe | |
| Mn | | | | Zn | |
| Cr | | | | | |
| | | | | Fe^{2+} | |
| Fe^{3+} | | | | Cr^{3+} | |



Arrows in box

State Hund's rule

State Paul's Exclusion Principle

Draw arrows-in-box diagrams to represent the assignment and arrangement of electrons in different subshells for the elements above.