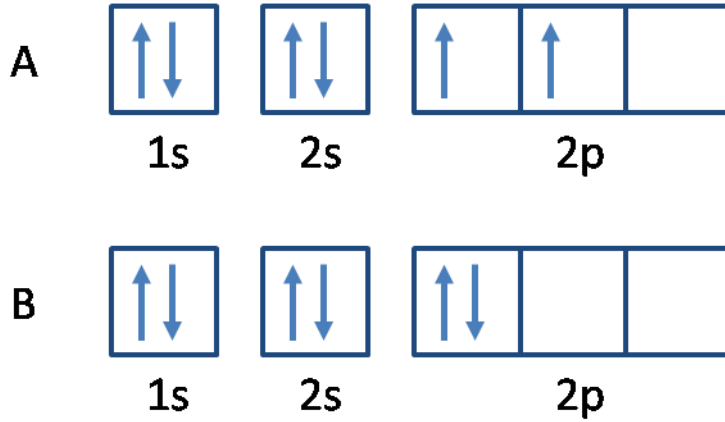


Electron Configuration Homework Answers

1. Which of the following electron notation diagrams is correct?



Justify your choice with regard to Hund's rule

2. Complete the orbital diagrams for the following elements:

a. Lithium $1s^2 2s^1$



b. Sodium: $1s^2 2s^2 2p^6 3s^1$



c. Silicon: $1s^2 2s^2 2p^6 3s^2 3p^2$



d. Neon: $1s^2 2s^2 2p^6$



e. Titanium: $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^2$



f. Phosphorous: $1s^2 2s^2 2p^6 3s^2 3p^3$



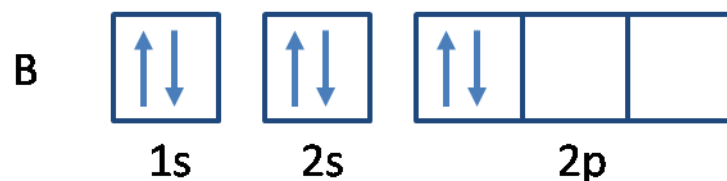
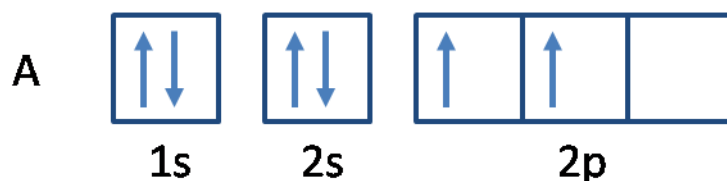
Electron Configuration Homework Answers

3. For each of the following orbital diagrams, name the element being described.



Electron Configuration Homework Answers

1. Which of the following electron notation diagrams is correct?



Justify your choice with regard to Hund's rule

Option A.

Electrons will occupy orbitals singularly before doubling up in orbitals, with electrons with opposing spin.

2. Complete the orbital diagrams for the following elements:

a. Lithium $1s^2 2s^1$



b. Sodium: $1s^2 2s^2 2p^6 3s^1$



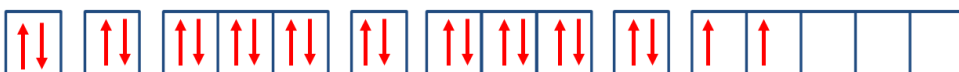
c. Silicon: $1s^2 2s^2 2p^6 3s^2 3p^2$



d. Neon: $1s^2 2s^2 2p^6$



e. Titanium: $1s^2 2s^2 2p^6 3s^2 3p^6 4s^2 3d^2$

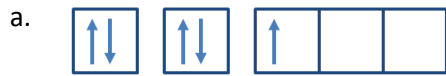


f. Phosphorous: $1s^2 2s^2 2p^6 3s^2 3p^3$



Electron Configuration Homework Answers

3. For each of the following orbital diagrams, name the element being described.



Boron



Oxygen



Carbon



Beryllium



Potassium



Sulfur



Vanadium