Atom or Ion: Oxygen

Protons: 8 # Neutrons: _____

Increasing Energy

1s ↑↓ — 1

2s ↑↓
2p ↑↓ ↑_ ↑_ — 2

3s ___
3p ___ ___ ___ — 3

4s ___
3d ___ ___ ___ ___ ___
4p ___ ___ ___ — 4

5s ___
4d ___ ___ ___ ___ ___
5p ___ ___ ___ — 5

How to use this worksheet

See the example for Oxygen at the left. This sheet works up to Xenon (atomic number 54).

1. Fill in the name of the atom or ion
2. Fill in the number of protons
3. **If** you are working with an isotope (e.g., Carbon-14), then put the number of neutrons
4. Fill in the electrons:
   a. Indicate electrons with an up arrow (↑) or down arrow (↓) for "spin up" and "spin down" electrons
   b. Add two electrons *maximum* for each underline, one spin up and one spin down (e.g., ↑_ or ↑↓ are OK)
   c. Add electrons from lowest energy to highest energy
   d. For underlines that are at the same energy (e.g., 2p), add the "up" electrons first, then "down" electrons

Atom or Ion: _____

Protons: _____ # Neutrons: _____

Increasing Energy

1s ___ — 1

2s ___
2p ___ ___ ___ — 2

3s ___
3p ___ ___ ___ — 3

4s ___
3d ___ ___ ___ ___ ___
4p ___ ___ ___ — 4

5s ___
4d ___ ___ ___ ___ ___
5p ___ ___ ___ — 5

Atom or Ion: _____

Protons: _____ # Neutrons: _____

Increasing Energy

1s ___ — 1

2s ___
2p ___ ___ ___ — 2

3s ___
3p ___ ___ ___ — 3

4s ___
3d ___ ___ ___ ___ ___
4p ___ ___ ___ — 4

5s ___
4d ___ ___ ___ ___ ___
5p ___ ___ ___ — 5

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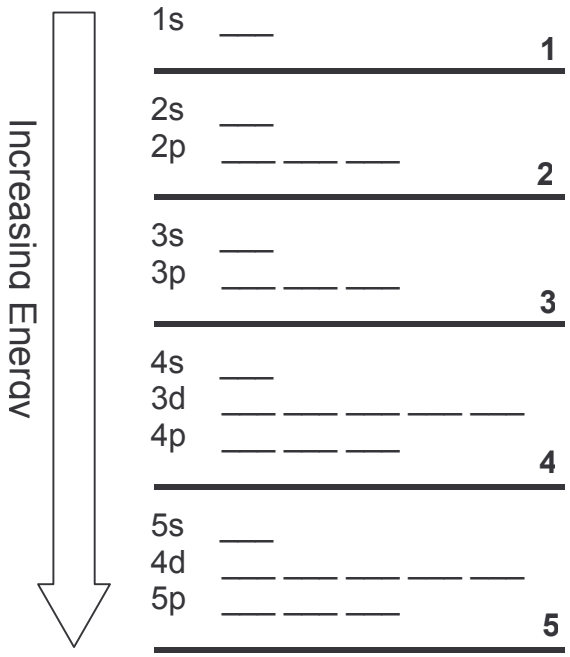
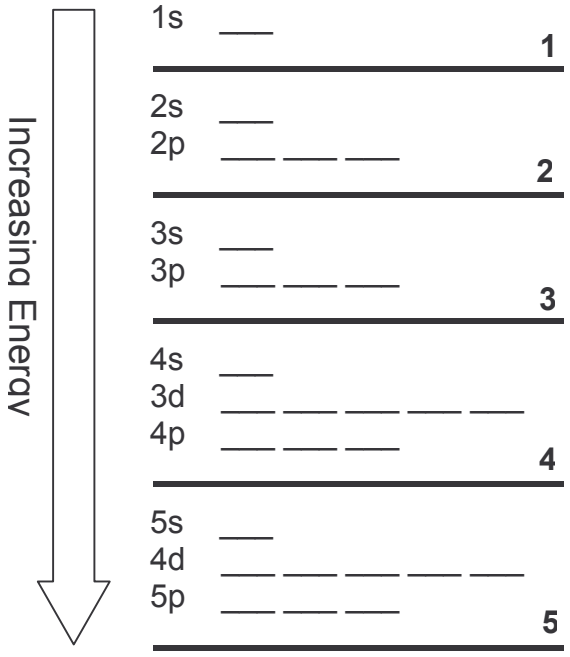
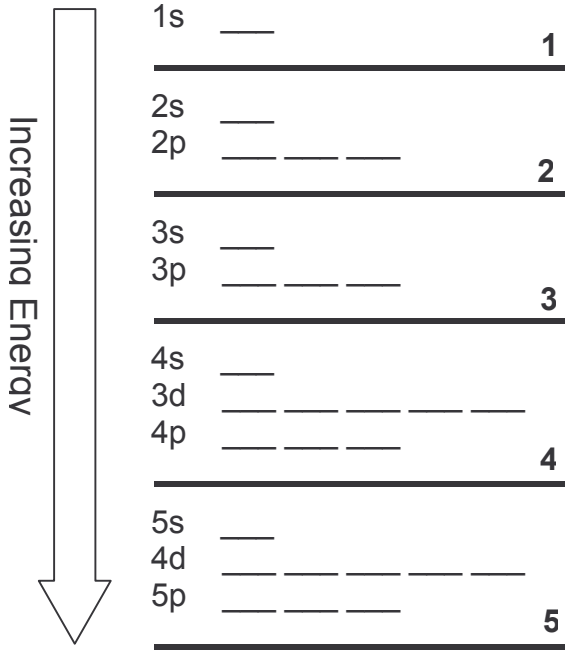
Atom or Ion: _____
Protons: _____ # Neutrons: _____



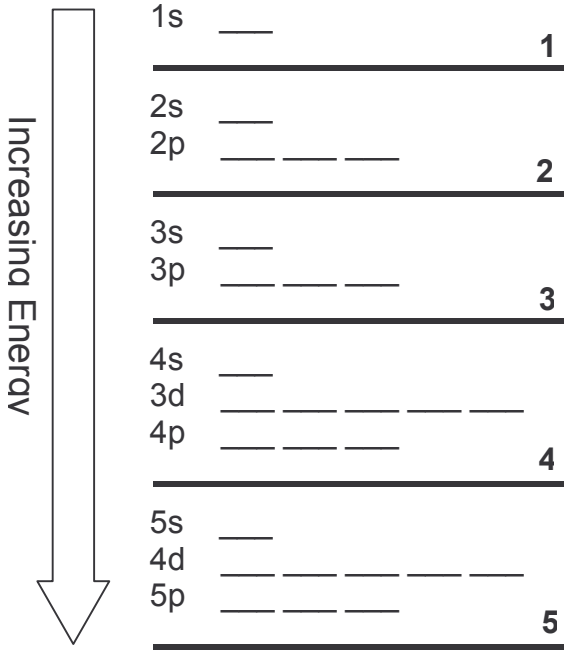
Atom or Ion: _____
Protons: _____ # Neutrons: _____



Atom or Ion: _____
Protons: _____ # Neutrons: _____



Atom or Ion: _____
Protons: _____ # Neutrons: _____



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