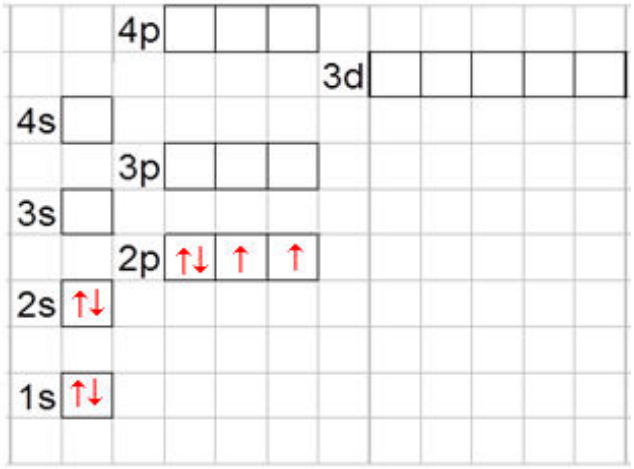
Unit 3: Atomic Theory & Structure **Name _____**
Electron Configuration Practice **Block # ____**

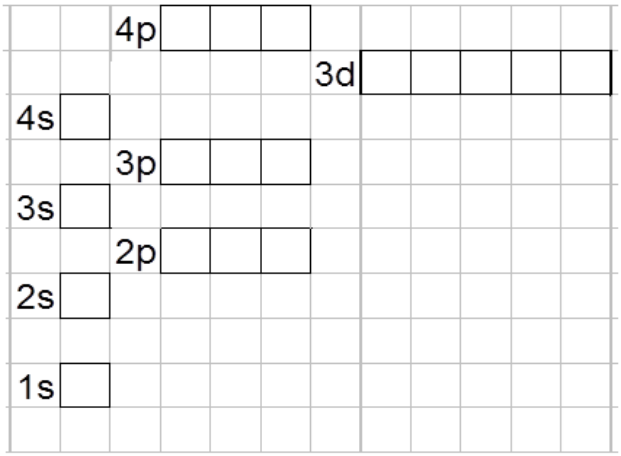
Electrons occupy higher and higher energy levels as the atom grows larger. Follow the rules below to write proper electron configurations:

- **Aufbau's principal** says that the lowest energy levels must be filled first.
- **Hund's rule** says that each orbital must be filled once before being paired.
- **Pauli's principle** says the paired electrons must have opposite spins.

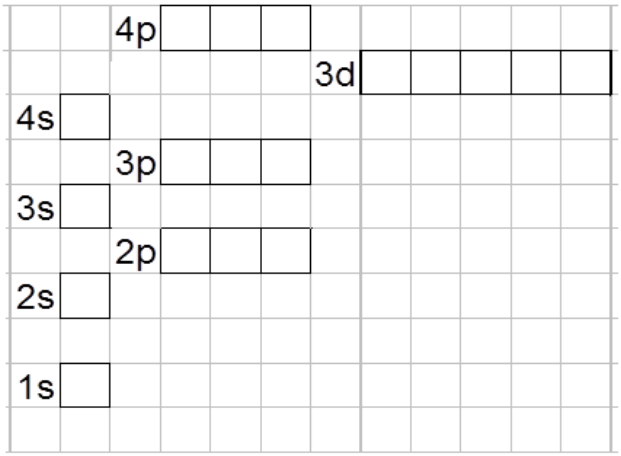
Write the electron configurations and arrow designations for the following:



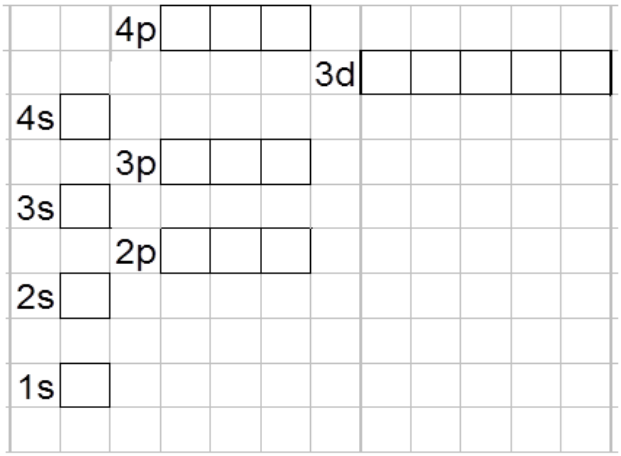
Oxygen atom: $1s^2\ 2s^2\ 2p^4$



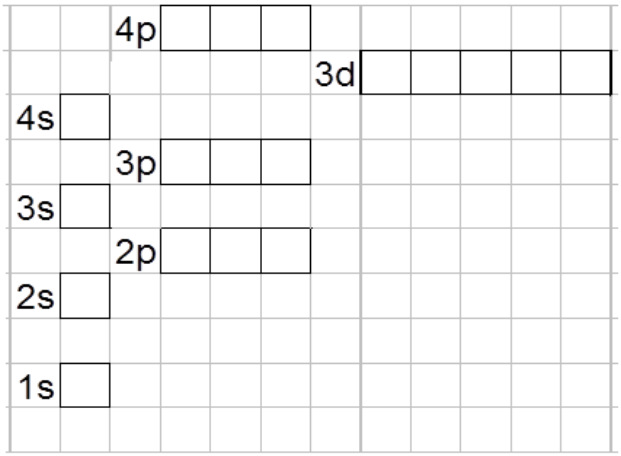
Phosphorus atom: _____



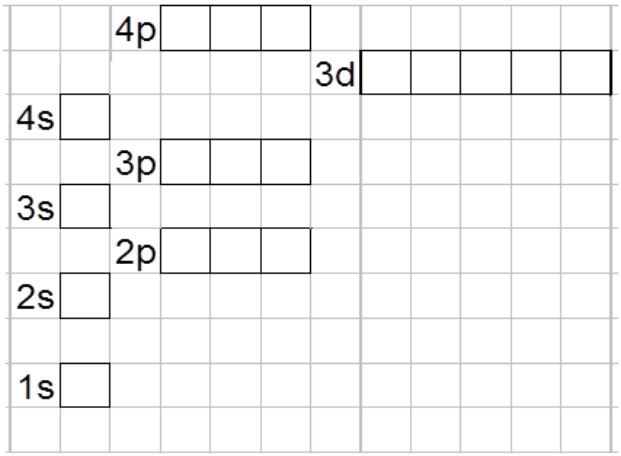
Iron atom: _____



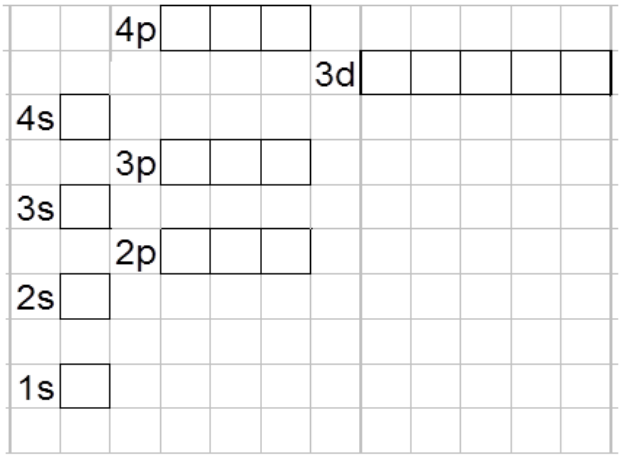
Chlorine atom: _____



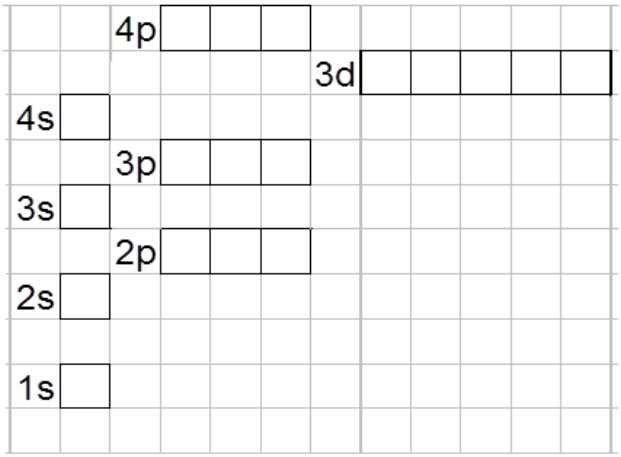
Sodium atom: _____



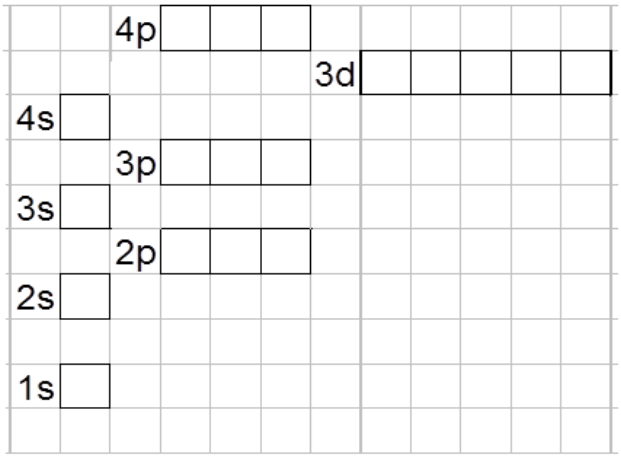
Sodium ion, Na^{+1}: _____



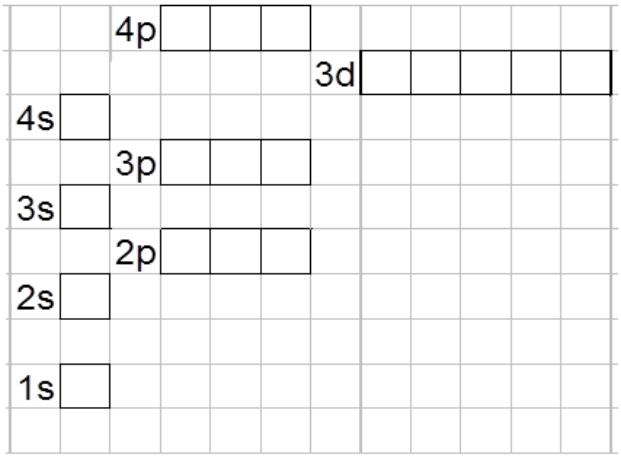
Magnesium atom: _____



Magnesium ion, Mg^{+2}: _____



Nitrogen atom: _____



Nitride ion, N^{-3}: _____