

Match each element or ion with its orbital notation:

Cl⁻¹

Ni⁺²

Ni

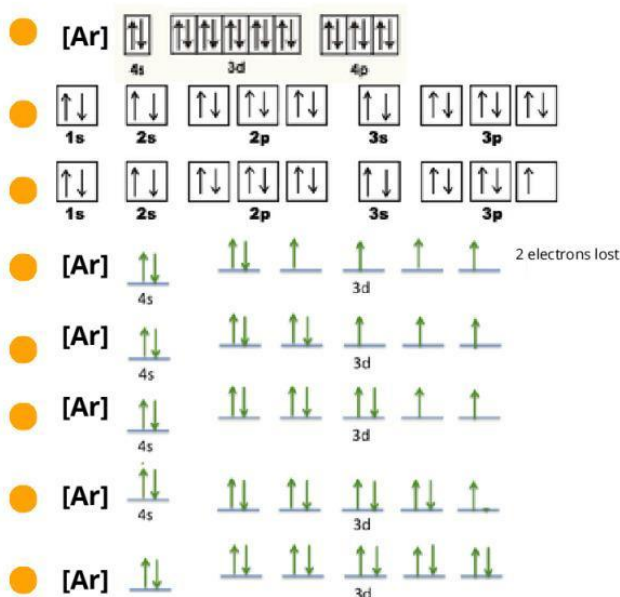
Zn

Co

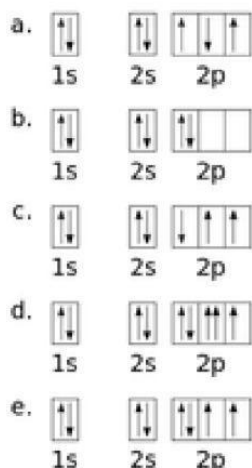
Cl

Kr

Cu



2. Choose the incorrect orbital notations



3. How many valence electrons are there on each of the following elements?

- Neon (Ne): 1s² 2s² 2p⁶
- Sodium (Na): 1s² 2s² 2p⁶ 3s¹
- Chlorine (Cl): 1s² 2s² 2p⁶ 3s² 3p⁵
- Calcium (Ca): 1s² 2s² 2p⁶ 3s² 4s²
- Phosphorus (P): 1s² 2s² 2p⁶ 3s² 3p³
- Argon (Ar): 1s² 2s² 2p⁶ 3s² 3p⁶
- Sulfur (S): 1s² 2s² 2p⁶ 3s² 3p⁴
- Rubidium (Rb): 1s² 2s² 2p⁶ 3s² 3p⁶ 4s² 3d¹⁰ 4p⁶ 5s¹
- Bismut (Bi): [Xe] 6s² 4f¹⁴ 5d¹⁰ 6p³