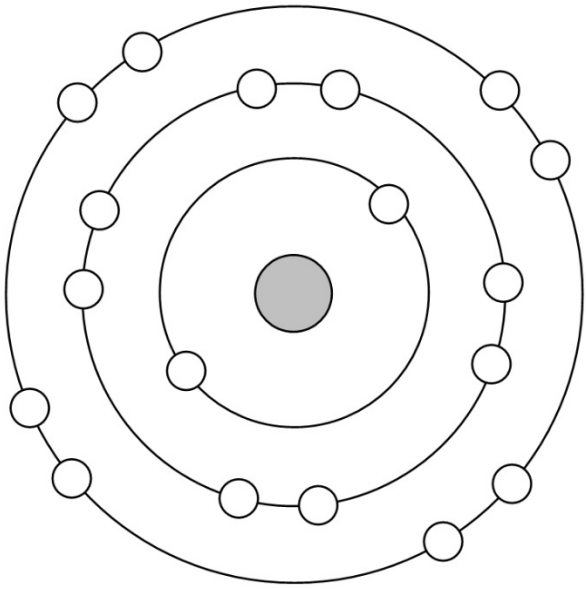
Fluorine

Valence electron in _____ E level

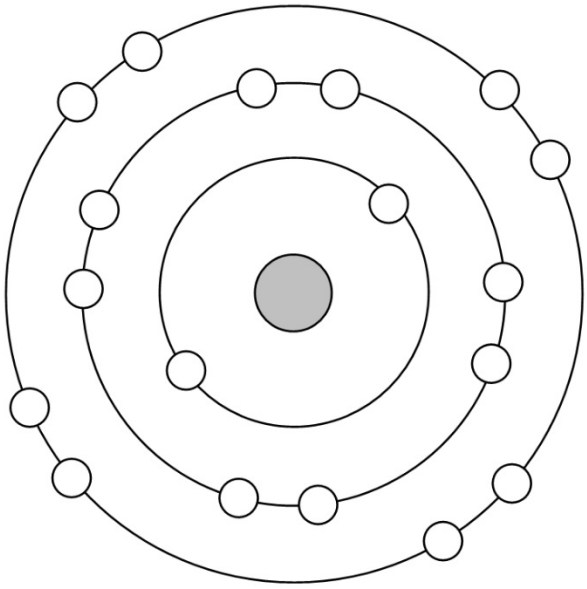
# of protons = _____



Chlorine

Valence electron in _____ E level

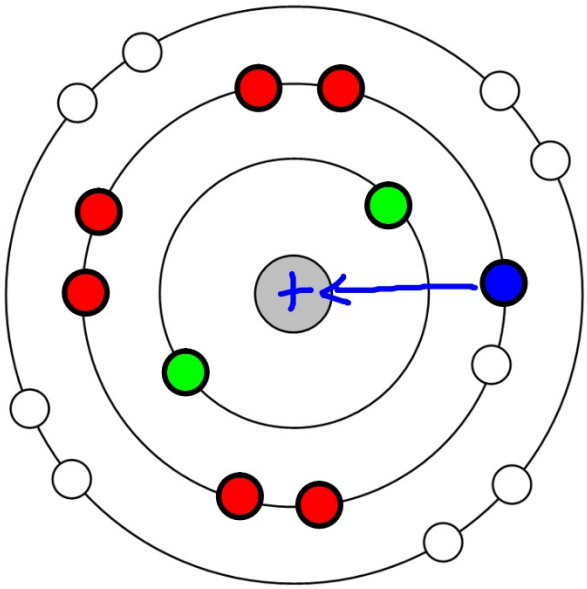
# of protons = _____



Fluorine

Valence electron in 2 E level

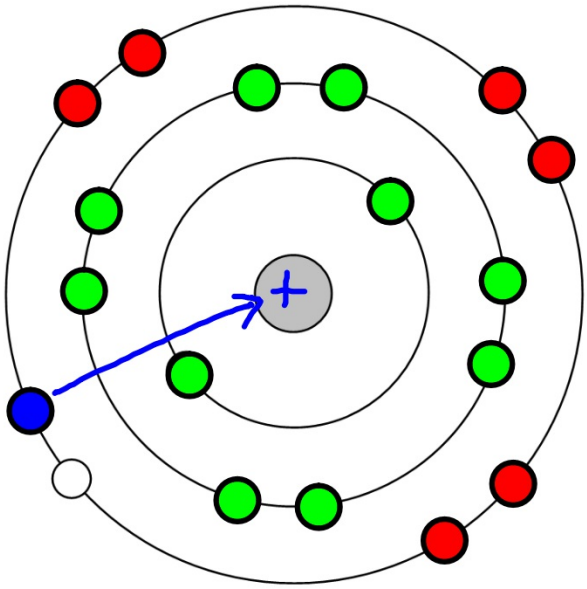
# of protons = 9



Chlorine

Valence electron in 3 E level

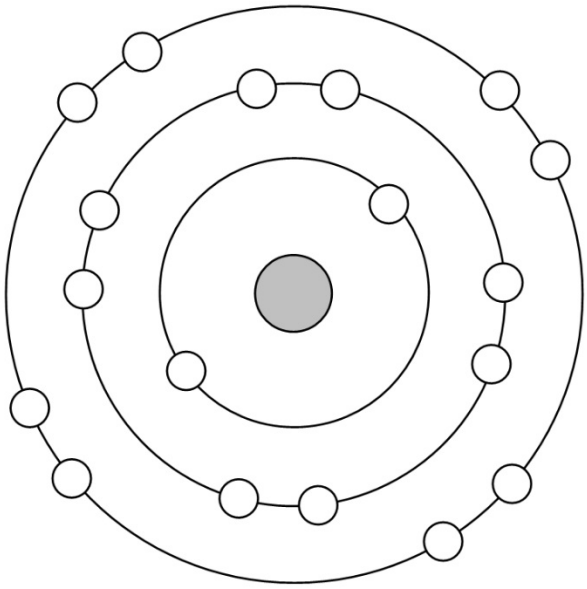
# of protons = 17



Lithium

Valence electron in _____ E level

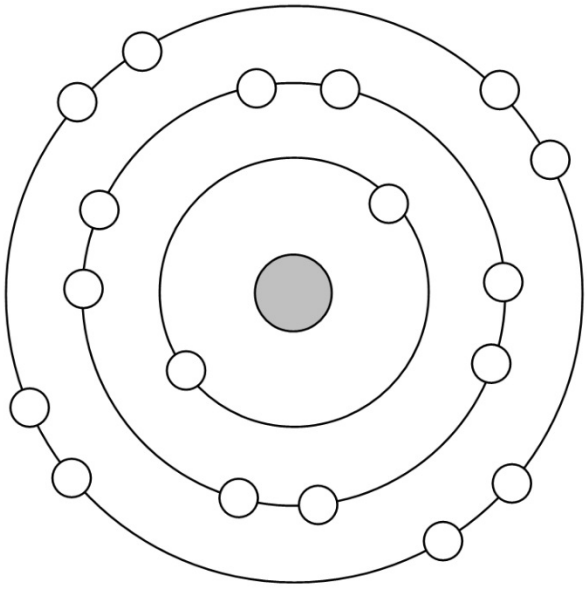
# of protons = _____



Carbon

Valence electron in _____ E level

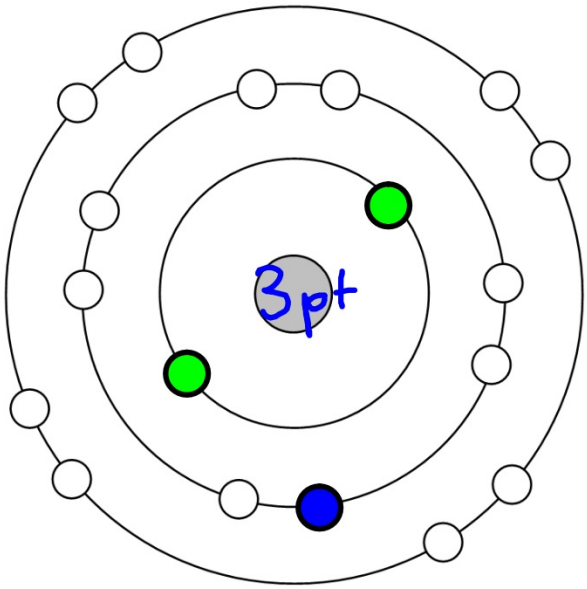
# of protons = _____



Lithium

Valence electron in 2 E level

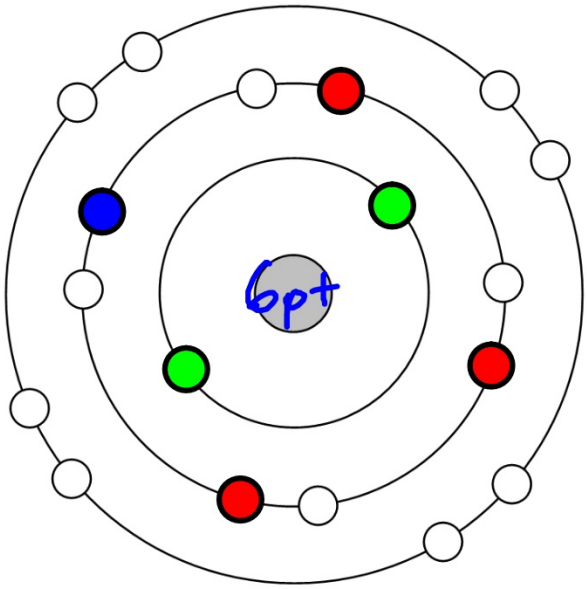
# of protons = 3



Carbon

Valence electron in 2 E level

# of protons = 6



Periodic Trends Notes

Ionization Energy

energy needed to remove an electron from an atom

☆ Stronger attraction between nucleus and valence e^- = more ionization energy

In each pair, determine which element has a higher ionization energy. Explain why.

a. Calcium or Bromine
b. Germanium or Lead
c. Oxygen or Neon
d. Magnesium or Barium

Boron

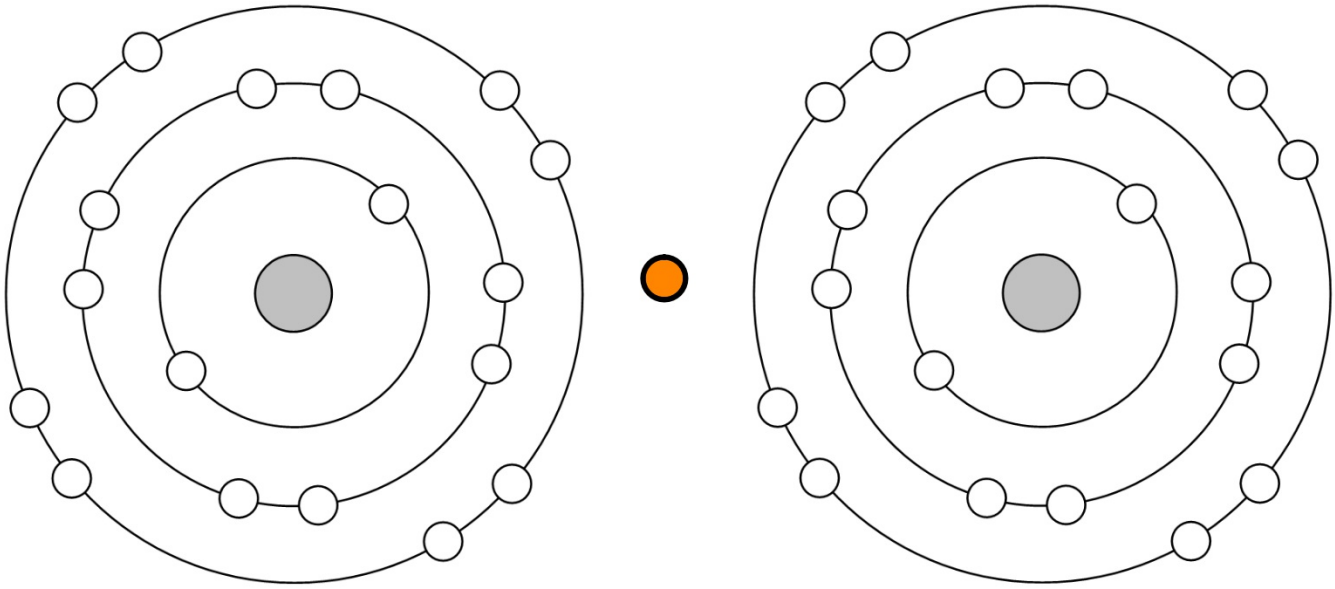
of E levels = _____

# of protons = _____

Oxygen

of E levels = _____

# of protons = _____



Boron

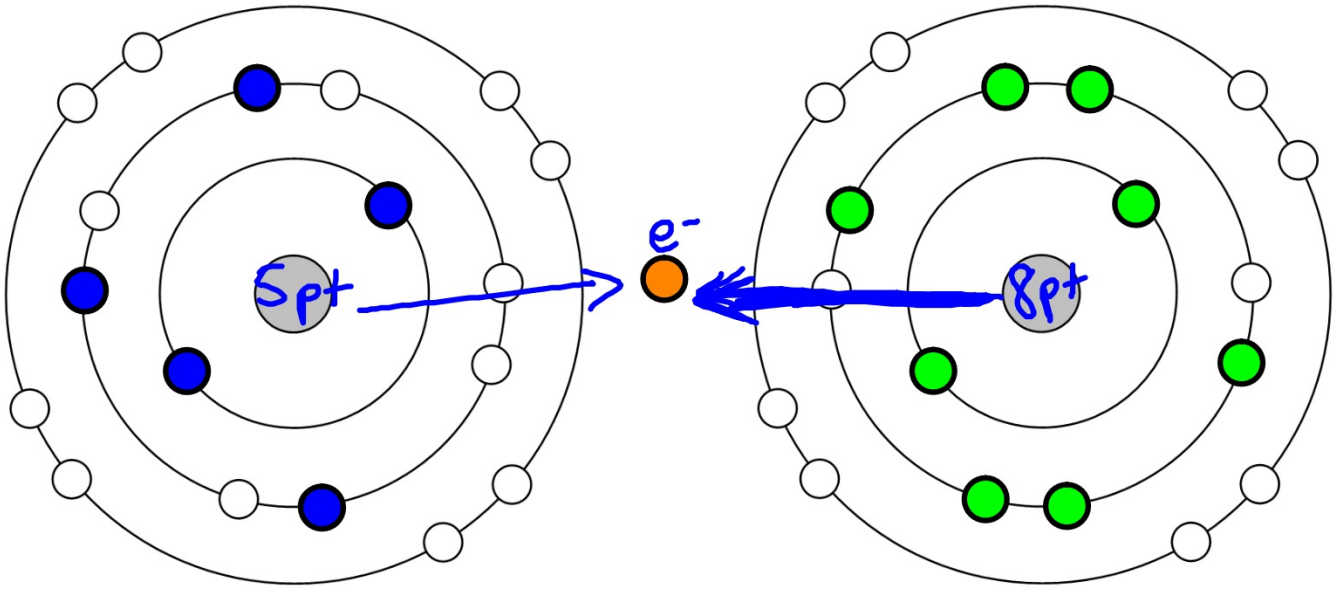
of E levels = 2

# of protons = 5

Oxygen

of E levels = 2

# of protons = 8



Nitrogen

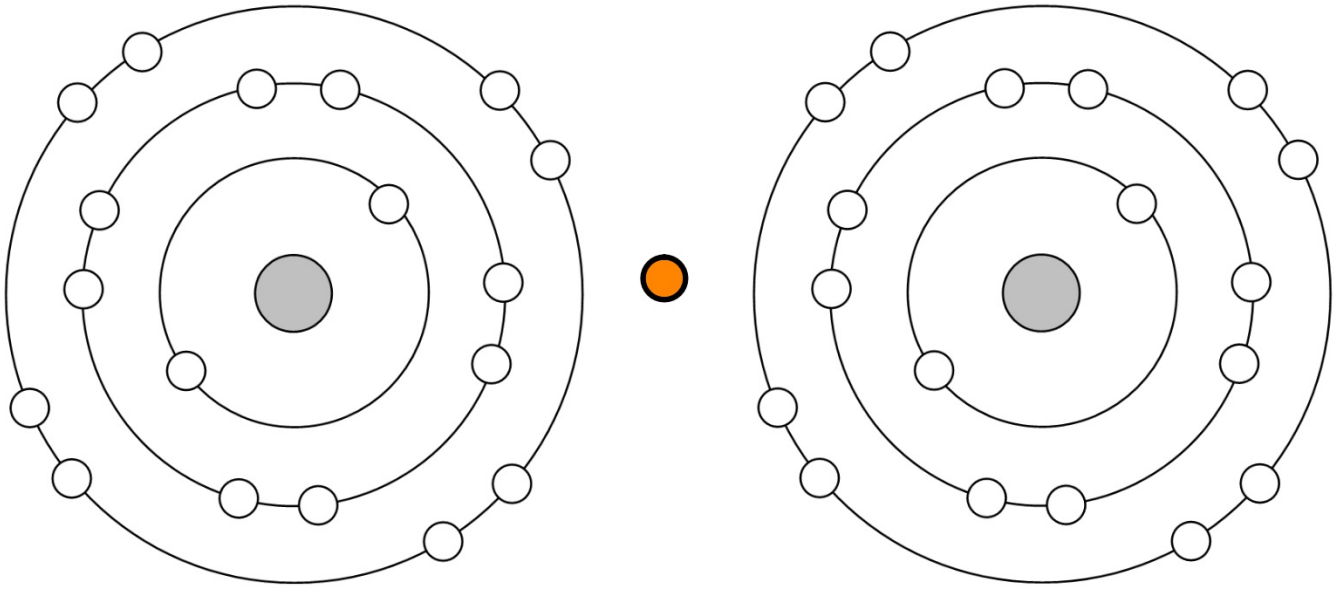
of E levels = _____

# of protons = _____

Phosphorus

of E levels = _____

# of protons = _____



Nitrogen

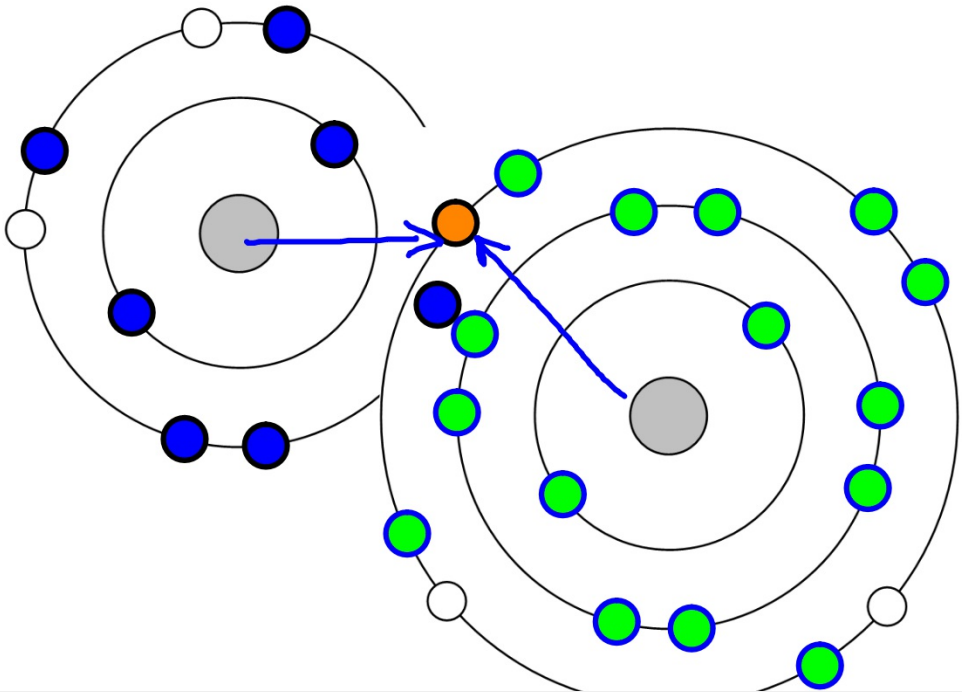
of E levels = 2

# of protons = 7

Phosphorus

of E levels = 3

# of protons = 15



Electronegativity

ability of atom to attract another atom's electron

☆ Stronger attraction between nucleus and "outside" electron = higher electronegativity

In each pair, determine which element has a higher electronegativity. Explain why.

a. Calcium or Bromine
b. Germanium or Lead
c. Oxygen or Neon
d. Magnesium or Barium

☆ When comparing strength of attraction,
Are the atoms/elements on the same row?
- If NO, then less E levels = Stronger attraction
- If yes, then more protons = Stronger attraction