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1. Use a table of electronegativities to characterize the bond between the following pairs of atoms as principally ionic or covalent.
- a) S and S
 - b) Mg and Cl
 - c) O and Cl

[1] _____

2. Three elements have electron configurations of

- a) $1s^2 2s^2$
- b) $1s^2 2s^2 2p^6 3s^2 3p^6 4s^1$
- c) $1s^2 2s^2 2p^6 3s^2$

Arrange these atoms in order of increasing electronegativity.

[2] _____

3. Arrange the following atoms in order of decreasing electronegativity.
O, B, Na

[3] _____

4. Use a periodic table to determine if the following pairs of atoms produce ionic or covalent bonds.

Na, I and Ca, I

[4] _____