PERIODIC TABLE TRENDS WORKSHEET #2

Circle the correct element.

Li  Si  S  metal
N  P  As smallest ionization energy
K  Ca  Sc largest atomic mass
S  Cl  Ar member of the halogen family
Al  Si  P greatest electronegativity
Ga  Al  Si largest atomic radius
V  Nb  Ta largest atomic number
Te  I  Xe member of noble gases
Si  Ge  Sn 4 energy levels
Li  Be  B member of alkali metals
As  Se  Br 6 valence electrons
H  Li  Na nonmetal
Hg  Tl  Pb member of transition metals
Na  Mg  Al electron config. ending in $s^2p^1$
Pb  Bi  Po metalloid
B  C  N gas at room temperature
Ca  Sc  Ti electron config. ending in $s^2d^2$

Answers on your notebook pape:

1) Rank by increasing atomic radius:
carbon, aluminum, oxygen, potassium.
2) Rank by increasing electronegativity:
sulfur, oxygen, neon, aluminum.
3) Why does fluorine have a higher ionization energy than iodine?
4) Why do elements in the same family generally have similar properties?
5) Rank the sets of atoms from smallest to largest atomic radius.
a. Li, C, F  b. Li, Na, K
c. Ge, P, O  d. C, N, Al
6) Rank each set of atoms from lowest to highest ionization energy.
a. Mg, Si, S  b. Mg, Ca, Ba
c. F, Cl, Br  d. Ba, Cu, Ne  e. Si, P, He
7) Rank each set of atoms from highest to lowest electronegativity.
a. Li, C, N  b. C, O, Ne  c. Si, P, O
d. K, Mg, P  e. S, F, He
8) Brainstorm a mnemonic to help you remember which way the three trends (radius, ionization energy, electronegativity) increase on the PT (up/down/left/right)

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