

Periodic Table: Regents Practice Name _____

- ___ 1) Germanium is classified as a
A) noble gas C) metal
B) nonmetal D) metalloid
- ___ 2) Which of the following elements has the *highest* electronegativity?
A) Al C) K
B) Ca D) H
- ___ 3) As the elements in Period 2 of the Periodic Table are considered in succession from left to right, there is a decrease in atomic radius with increasing atomic number. This may *best* be explained by the fact that the
A) number of protons increases, and the number of shells of electrons increases
B) number of protons decreases, and the number of shells of electrons increases
C) number of protons increases, and the number of shells of electrons remains the same
D) number of protons decreases, and the number of shells of electrons remains the same
- ___ 4) Which element has properties of electrical conductivity and luster and exists as a liquid at STP?
A) Br C) Hg
B) C D) I
- ___ 5) Based on the *Properties of Selected Elements* chemistry reference table, which of the following atoms requires the *least* energy for the removal of the most loosely bound electron?
A) Be C) Br
B) Sn D) Sr
- ___ 6) As the elements in Group 17 are considered in order of increasing atomic number, the chemical reactivity of each successive element
A) increases
B) remains the same
C) decreases
- ___ 7) Which two groups of the Periodic Table contain metals that are so active chemically that they occur naturally only in compounds?
A) 1 and 2 C) 2 and 12
B) 1 and 11 D) 11 and 12
- ___ 8) Which list of elements contains a metal, a metalloid, and a nonmetal?
A) Zn, Ga, Ge C) F, Cl, Br
B) Cd, Sb, I D) Si, Ge, Sn
- ___ 9) In Period 3, from left to right in order, each successive element will
A) decrease in atomic mass
B) decrease in electronegativity
C) increase in number of protons
D) increase in metallic character
- ___ 10) Which element is a brittle, nonconducting solid at 25°C?
A) S C) Bi
B) Al D) Br
- ___ 11) At STP, solid carbon can exist as graphite or as diamond. These two forms of carbon have
A) the same properties and the same crystal structures
B) different properties and the same crystal structures
C) different properties and different crystal structures
D) the same properties and different crystal structures
- ___ 12) The elements in the Periodic Table are arranged in order of increasing
A) mass number
B) neutron number
C) atomic number
D) atomic radius
- ___ 13) Which of the following ions has the *smallest* radius?
A) F⁻ C) Rb⁺
B) Cl⁻ D) K⁺
- ___ 14) Which element is malleable and conducts electricity?
A) sulfur C) iodine
B) phosphorus D) iron
- ___ 15) As the elements in Group 17 on the Periodic Table are considered from top to bottom, what happens to the atomic radius and the metallic character of each successive element?
A) The atomic radius decreases and the metallic character increases.
B) The atomic radius increases and the metallic character decreases.
C) The atomic radius and the metallic character both decrease.
D) The atomic radius and the metallic character both increase.
- ___ 16) Element X is a solid that is brittle, lacks luster, and has six valence electrons. In which group on the Periodic Table would element X be found?
A) 1 C) 15
B) 2 D) 16