**Atoms: Periodic Trends: Quiz 5b**

/5

Please show work where necessary!

1. Identify each element as a **metal**, **metalloid**, or **nonmetal**.
   1. Zinc
   2. Phosphorus
2. Which block (s, p, d, or f) are the Halogens found?
3. Circle the element with the largest atomic radius and put a square around the element with the smallest atomic radius: **O C Be Ne**
4. Circle the element with the highest electronegativity and put a square around the element with the lowest electronegativity: **O C Be Ne**
5. Circle the element with the highest ionization energy and put a square around the element with the lowest ionization energy: **O C Be Ne**

Answers:

1. Identify each element as a **metal**, **metalloid**, or **nonmetal**. (1/2 mark each)
   1. Zinc **metal**
   2. Phosphorus **nonmetal**
2. Which block (s, p, d, or f) are the Halogens found? **P**
3. Circle the element with the largest atomic radius and put a square around the element with the smallest atomic radius: **O C Be Ne**

*Atomic radius decreases as you go left to right across a period. Beryllium is in the farthest to the left, and neon is the farthest to the right of the four elements.*

1. Circle the element with the highest electronegativity and put a square around the element with the lowest electronegativity: **O C Be Ne**

*Electronegativity increases as you go left to right across a period, stopping at group 17. Noble gases do not have electronegativity. Beryllium is in the farthest to the left, and oxygen is the farthest to the right of the three elements, excluding neon. If you picked neon based on the general trend, that’s okay!*



1. Circle the element with the highest ionization energy and put a square around the element with the lowest ionization energy: **O C Be Ne**

*Ionization energy increases as you go left to right across a period. Beryllium is in the farthest to the left, and neon is the farthest to the right of the four elements.*