

Year 12 Chemistry
Quick Quiz: Elemental Chemistry

1. Write the electron configuration for the following:
 - (a) Kr

 - (b) Co^{3+}

2. What is the name given to the Group II elements?

3. Write the charges for monatomic ions of the following:
 - (a) calcium

 - (b) sulfur

4. Explain how covalences of 2, 4 and 6 are all possible for sulfur.

5. Write the covalences for the following elements:
 - (a) Br

 - (b) phosphorus

6. For the following elements, state whether the electronegativity is high, intermediate or low, and write an equation (if it reacts) for the reaction of the given oxide with water.
 - (a) Zinc (use oxide ZnO)

 - (b) Phosphorus (use oxide P_4O_{10})

7. For the following molecules, write the oxidation state of each element:
 - (a) SiO_2
 - (b) Na_2CO_3

8. Draw the SO_4^{2-} molecule. Include bond and molecular polarity. Name the shape.

9. Draw a diagram to show hydrogen bonding.