

1. Explain the difference between ionic and covalent bonds. (What happens to the electrons?)
2. Explain why losing an electron gives an atom a + charge.
3. Write out the Lewis structures for the following molecules
  - a.  $\text{SCl}_2$
  - b.  $\text{PCl}_3$
  - c.  $\text{O}_2$
4. Write out the Lewis structures for the following ionic substances
  - a.  $\text{BaO}$
  - b.  $\text{NaI}$
  - c.  $\text{Li}_2\text{O}$

5. Which of the following substances is probably covalently bonded, and explain why you think so.

	Boiling point	Color	Dissolves in water
substance X	50°C	Yellow	No
substance Y	450°C	Brown	Yes
substance Z	750°C	White	No