

Multivalent metals and polyatomic ions

1. Define the following terms:

(a) ionic compound

(b) multivalent metal

(c) polyatomic ion

2. Write the formulae and names of the compounds with the following combination of ions. The first row is completed to help guide you.

	Positive ion	Negative ion	Formula	Compound name
(a)	Pb ²⁺	O ²⁻	PbO	lead(II) oxide
(b)	Sb ⁴⁺	S ²⁻		
(c)			TlCl	
(d)				tin(II) fluoride
(e)			Mo ₂ S ₃	
(f)	Rh ⁴⁺	Br ⁻		
(g)				copper(I) telluride
(h)			NbI ₅	
(i)	Pd ²⁺	Cl ⁻		

3. Write the chemical formula for each of the following compounds.

(a) manganese(II) chloride _____	(f) vanadium(V) oxide _____
(b) chromium(III) sulphide _____	(g) rhenium(VII) arsenide _____
(c) titanium(IV) oxide _____	(h) platinum(IV) nitride _____
(d) uranium(VI) fluoride _____	(i) nickel(II) cyanide _____
(e) nickel(II) sulphide _____	(j) bismuth(V) phosphide _____