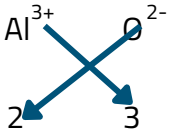
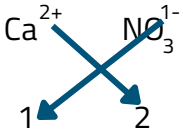
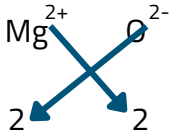
Online Chem Tuition

Formulae Ionic Compounds

These can be worked out by using the formulae of the ions and cancelling out the charges. When learning how to do this the cross over method can be useful. Two examples are given below:

	Method step	**aluminium oxide**	**calcium nitrate**
1.	Write down formulae of ions.	Al^{3+} O^{2-}	Ca^{2+} NO_3^-
2.	Draw arrows crossing over and copy the number of the charge underneath.		
3.	Write out formula by writing ion formula (without charge) and then the number underneath as a subscript. Will need to use brackets if need more than one of a compound ion.	Al_2O_3	$Ca(NO_3)_2$

Note: if the numbers are the same then you only need one of each ion to cancel out the charge.

e.g. magnesium oxide 

so is MgO not Mg_2O_2

Try these:

potassium chloride	sodium bromide	calcium iodide	barium oxide
silver nitrate	copper(II) carbonate	iron(III) sulfate	ammonium hydroxide

Answers