If you are given ***the formulas of the reactants***.

1. On Line 2...Write the formulas of each reactant and place an ==> after them.

2. On Line 1...Write the names of each of the reactants.

3. On Line 1...Write these and the names of products by switching last names of the reactants

4. Check solubility to determine if there is a reaction. If there is no reaction...STOP!!!!!

(You do not want to do all this work if there is no reaction.)

5. On line 3...If there is a solid, liquid or gas formed, write each of the 4 ions with the correct charges.

(Separate each with a "+" and place an "=>" after the 4th ion.)

6. On Line 2...Now write the correct formulas of the products. Remember the ions switch partners.

(the ratios may be different, pay attention to the charges.)

7. On line 2... Using the solubility rules, write the phase of each compound as a $_{(subscript)}$ after the formula.

(soluble=(aq), insoluble = (s), watch for the 5 exceptions=>LINK to Sol. Rules)

7. On line 3 and 4...Any solid liquid or gas can copied as in onto the lower lines.

(just write them as they appear on line 2, keep them on the right side of the arrow.)

9. On line 3... If a product is soluble (aq) in line 2, write the ions that make it up under it with "+" between them. (just copy those ions from the left side of the arrow and put them on the right.)

(add $_{(aq)}$ to all ions...tedious step)

10. On line 2... Now you can balance the Molecular reaction

(keep yourself from balancing the reaction until the 2 reactions are finished.)

11. On line 3...You have to add coefficients to the ions and the compounds using the reaction form line 2.

(take the subscript for the ion (if it has one) and multiply it by the coefficient.)

(for the compound, just copy the coefficient from the previous reaction.)

12. On line 4... Ignore all spectator ions on line 3, and place the remaining ions on line 4 with coefficients.

(Spectator ions appear the same on both sides of the reaction.) (They don't actually participate in the reaction.)

(If you did this correctly the ions should for the product)

13. On line 4...Reduce the confidents to the lowest whole number ratio