

Double Replacement Reactions

Complete the following word equation for a reaction of two aqueous solutions:

magnesium chloride and silver nitrate \rightarrow _____ + _____

Write the molecular, ionic, and net ionic equation for the above reaction. (Include states of matter)

Molecular equation: _____ \rightarrow _____

Ionic equation: _____ \rightarrow _____

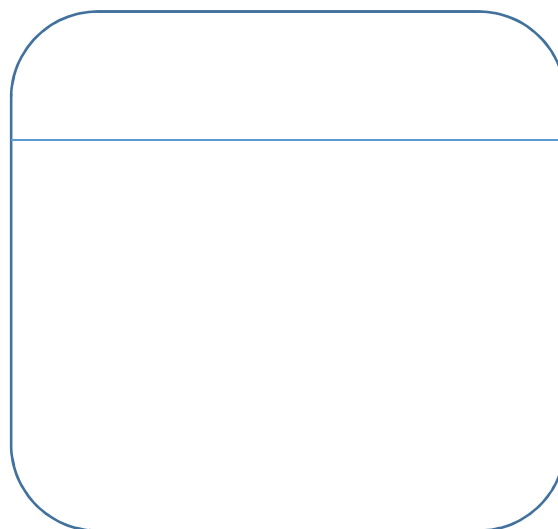
Net ionic equation: _____ \rightarrow _____

Draw a particulate model of this reaction, before the reaction and after as much precipitate can form. In each drawing include 6 of each of the ions, magnesium, chloride, silver and nitrate. Identify ions with charges. Be sure to show a difference when a substance is dissolved in solution or precipitated out of solution.

Before reaction:



When reaction stops:



Which ions are the spectator ions? Why are they not written in the net ionic equation?

If you started with 6 ions of silver and 3 ions of chloride, how would this affect the amount of precipitate you would get? What other ion (besides the spectator ions) would still be in the solution after the reaction is complete?

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What do the solutions look like before they are combined?

What does this reaction look like after they are combined?