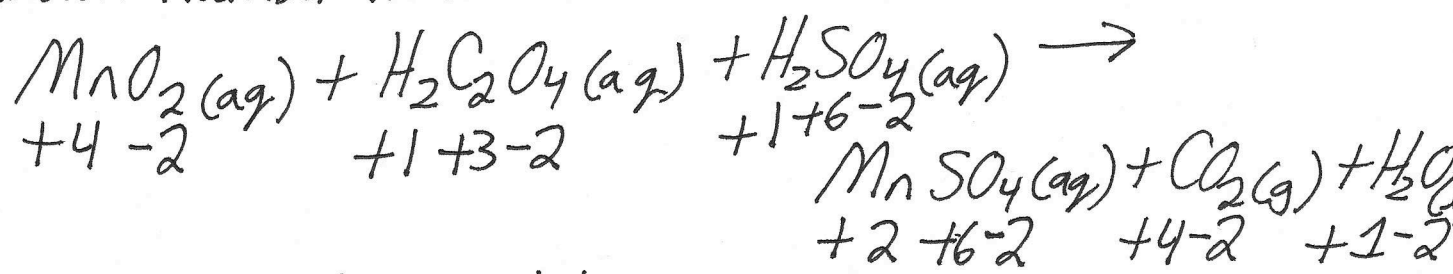


Oxidation Number Method

Balance the following redox reaction equation using the oxidation number method.



The change in the oxidation number of the oxidized element C = $(+4) - (+3) = +1$.

The change in the oxidation number of the reduced element Mn = $(+2) - (+4) = -2$.

The lowest common multiple of 1 & 2 is 2. Thus, in the balanced equation, two carbon atoms are needed for every manganese atom. The increase & decrease in oxidation numbers is two for both atoms.

The partially balanced equation is:

