terminology for a redox reaction between compound X and compound Y

X is oxidized	Y is reduced
X loses electrons	Y gains electrons
oxidation number of X increases	oxidation number of Y decreases
X is the reducing agent	Y is the oxidizing agent

Every entry in each column is a synonym for every other entry in the same column.

The half-reaction method for balancing redox reactions

1. Write the equations for the two half-reactions.
2. For each half-reaction: (a) Balance all the elements *except* H and O, by adjusting the stoichiometric coefficients. (b) Balance O's, using H_2O's. (c) Balance H's, using H^+'s. (d) Balance the charge, using electrons.
3. Balance electrons between the two half-reactions, by multiplying each half-reaction by an appropriate integer.
4. Add the half-reactions to obtain the overall reaction; because of step 3, the electrons will cancel. Include states of matter in the overall reaction. Cancel species that appear on both sides of the overall reaction.
Acidic solution: The equation from step 4 is the correct equation; check that all the elements balance and that the charges balance.
Basic solution: Neutralize the H^+'s in the equation from step 4 by adding an equal number of OH^-'s to form H_2O's; add the same number of OH^-'s to the other side of the equation. Cancel H_2O's that appear on both sides of the reaction. You now have the correct equation; check that all the elements balance and that the charges balance.

All steps must be carried out in the exact order they are listed in the method.