

# VII) Writing Balanced Equations for Redox Reactions Using the Standard Reduction Table

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Steps:

1) Find the **appropriate reduction and oxidation half-reactions** from the table, and write them down, one above the other.

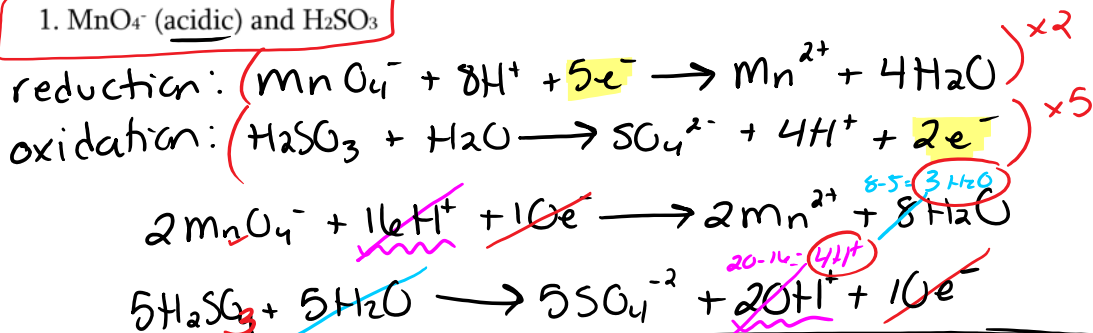
2) **Balance electrons.**

*e<sup>-</sup> ... often you can cancel H<sub>2</sub>O, H<sup>+</sup>*

3) **Cancel where appropriate** and write the balanced equation. Electrons should cancel and not be written in the overall redox reaction (*electrons should only be present in half-reactions*).

**Practice Questions:** Write a balanced reaction for the following reactants.

1. **MnO<sub>4</sub><sup>-</sup> (acidic) and H<sub>2</sub>SO<sub>3</sub>**



2. **Cu and NO<sub>3</sub><sup>-</sup> (acidic) to produce Cu<sup>2+</sup> and NO**

*reactants* *products*

$\text{Cu(s)} \rightarrow \text{Cu}^{2+}$  (oxidation)

$\text{NO}_3^- \rightarrow \text{NO}$  (reduction)

