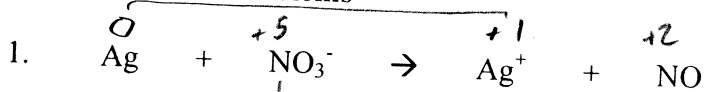
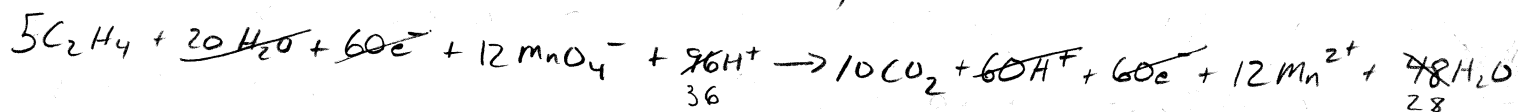
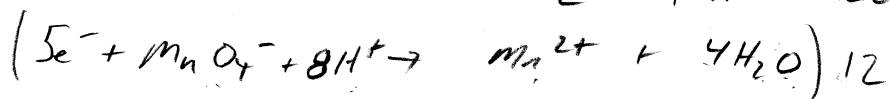
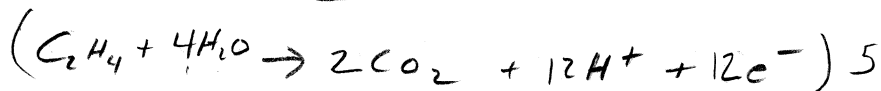
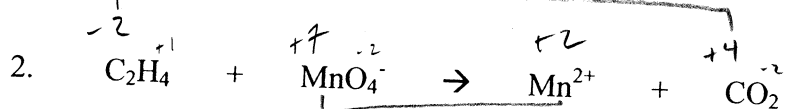
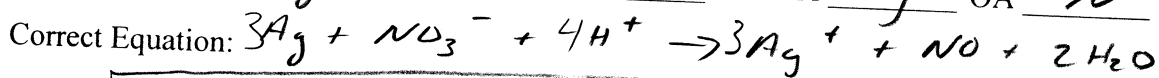


Balance the following redox reaction using the half-reaction method. Identify the oxidizing agent (OA), the reducing agent (RA), the element oxidized, and the element reduced.

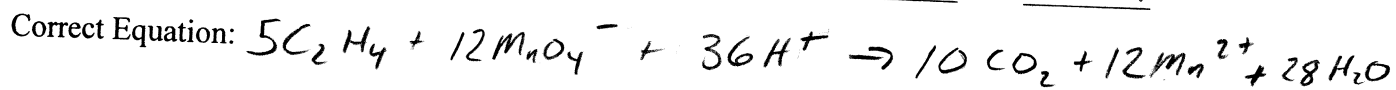
Acidic Solution Problems

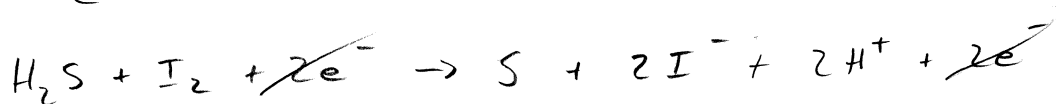
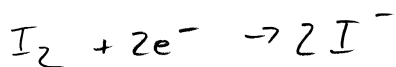
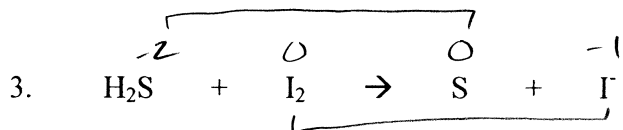


Element Oxidized Ag Element Reduced N RA Ag OA N



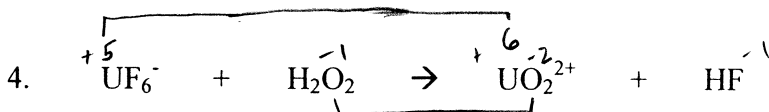
Element Oxidized C Element Reduced Mn RA C OA Mn





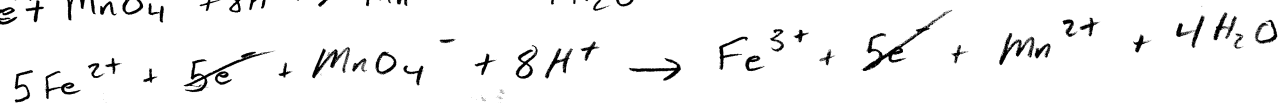
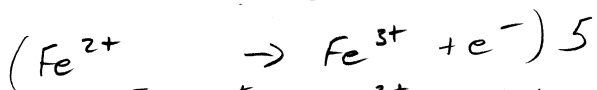
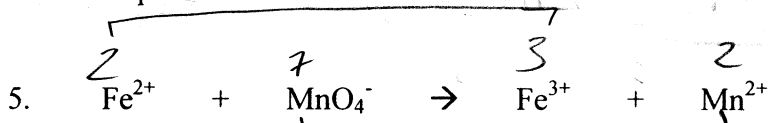
Element Oxidized S Element Reduced I RA S OA I

Correct Equation: $\text{H}_2\text{S} + \text{I}_2 \rightarrow \text{S} + 2\text{I}^- + 2\text{H}^+$



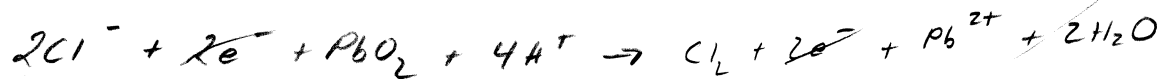
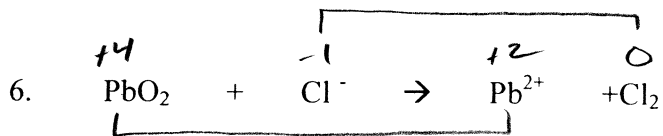
Element Oxidized _____ Element Reduced _____ RA _____ OA _____

Correct Equation:

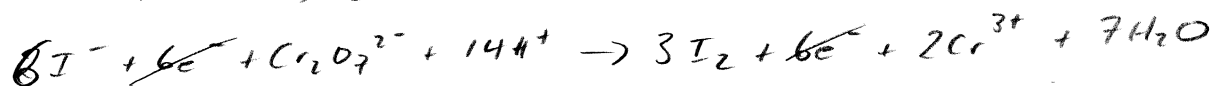
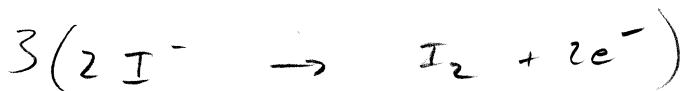
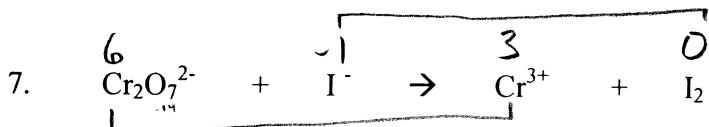
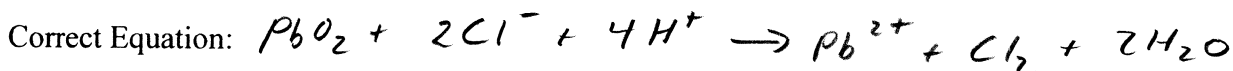


Element Oxidized Fe Element Reduced Mn RA Fe OA Mn

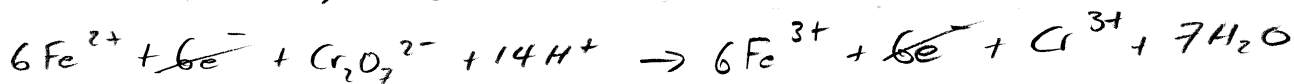
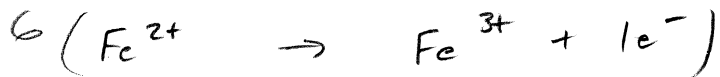
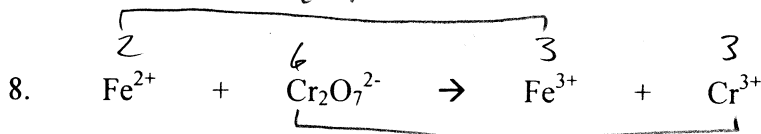
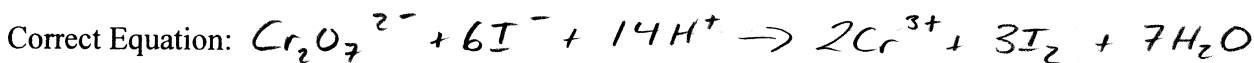
Correct Equation: $5\text{Fe}^{2+} + \text{MnO}_4^- + 8\text{H}^+ \rightarrow \text{Fe}^{3+} + \text{Mn}^{2+} + 4\text{H}_2\text{O}$



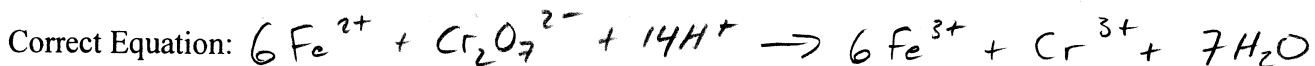
Element Oxidized Cl Element Reduced Pb RA Cl OA Pb

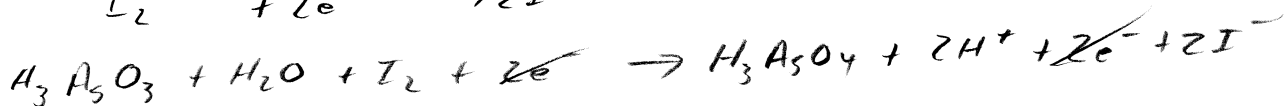
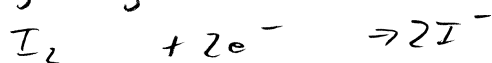
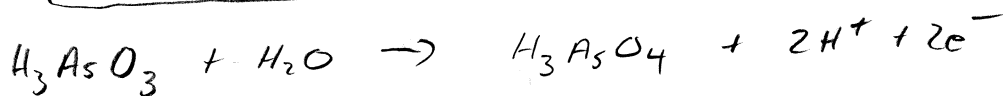
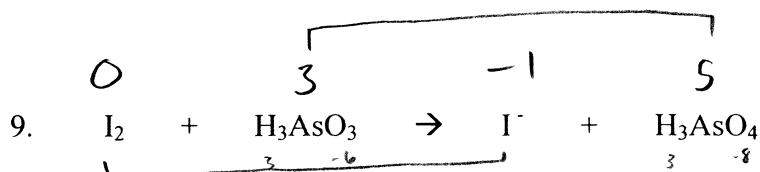


Element Oxidized I Element Reduced Cr RA I OA Cr



Element Oxidized Fe Element Reduced Cr RA Fe OA Cr

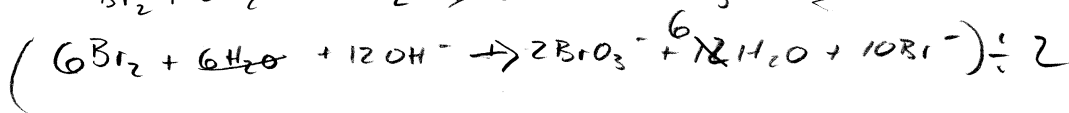
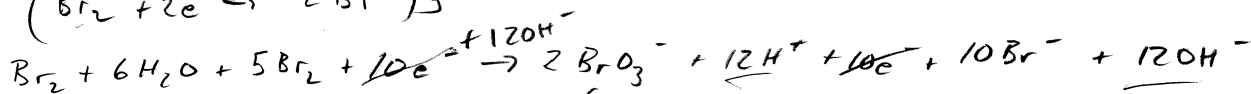
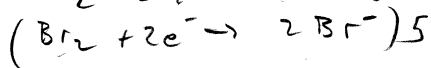
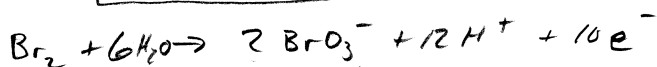
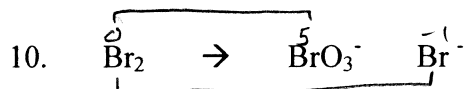




Element Oxidized As Element Reduced I RA As OA I

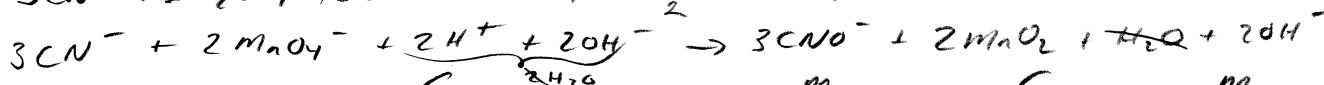
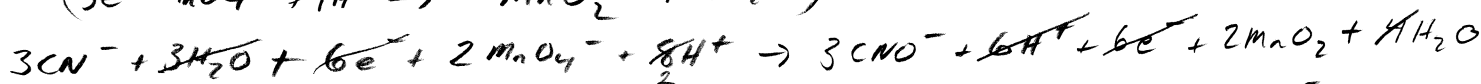
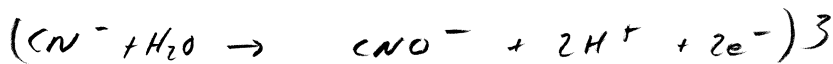
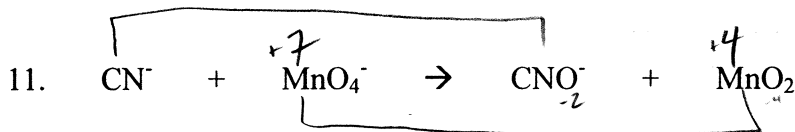
Correct Equation: $\text{I}_2 + \text{H}_3\text{AsO}_3 + \text{H}_2\text{O} \rightarrow \text{H}_3\text{AsO}_4 + 2\text{I}^- + 2\text{H}^+$

Basic Solution Problems



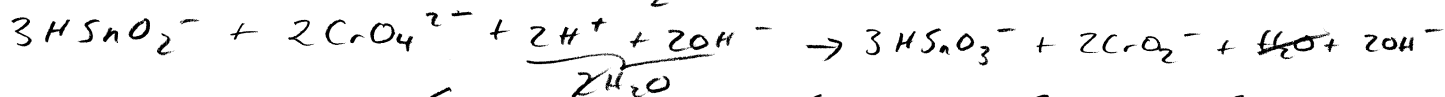
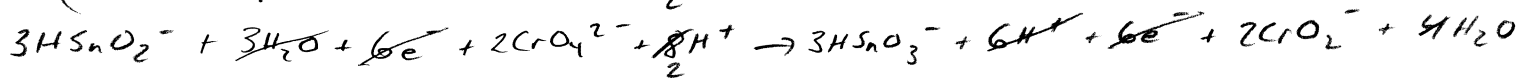
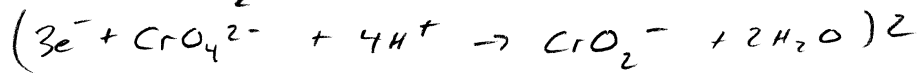
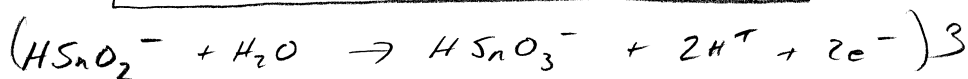
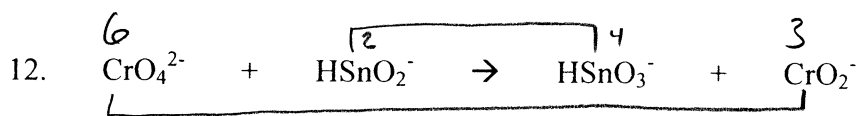
Element Oxidized Br Element Reduced Br RA Br OA Br

Correct Equation: $3\text{Br}_2 + 6\text{OH}^- \rightarrow \text{BrO}_3^- + 5\text{Br}^- + 6\text{H}_2\text{O}$



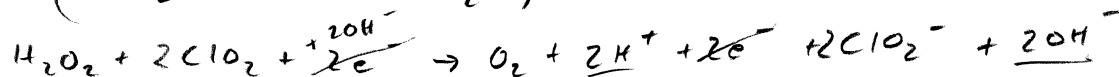
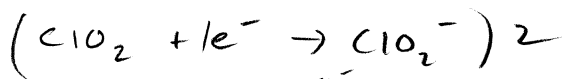
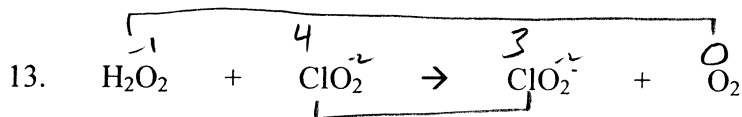
Element Oxidized C Element Reduced Mn RA C OA Mn

Correct Equation: $3\text{CN}^- + 2\text{MnO}_4^- + \text{H}_2\text{O} \rightarrow 3\text{CNO}^- + 2\text{MnO}_2 + 2\text{OH}^-$



Element Oxidized Sn Element Reduced Cr RA Sn OA Cr

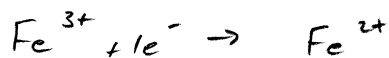
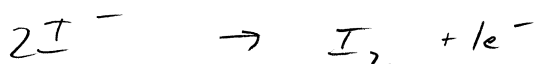
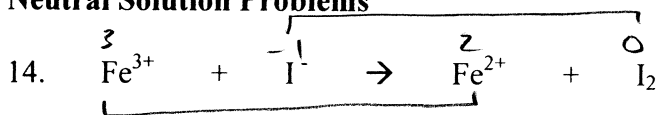
Correct Equation: $2\text{CrO}_4^{2-} + 3\text{HSnO}_2^- + \text{H}_2\text{O} \rightarrow 3\text{HSnO}_3^- + 2\text{CrO}_2^- + 2\text{OH}^-$



Element Oxidized O Element Reduced Cl RA O OA Cl

Correct Equation: $\text{H}_2\text{O}_2 + 2\text{ClO}_2 + 2\text{OH}^- \rightarrow \text{O}_2 + 2\text{ClO}_2^- + 2\text{H}_2\text{O}$

Neutral Solution Problems



Element Oxidized I Element Reduced Fe RA I OA Fe

Correct Equation: $\text{Fe}^{3+} + 2\text{I}^- \rightarrow \text{Fe}^{2+} + \text{I}_2$