

## Practice Sheet: Balancing Redox Reactions

1. Indicate the oxidation number of the ***bold-italicized*** element in the following compounds:

- $\text{CO}$
- $\text{CO}_2$
- $\text{IF}_7$
- $\text{Li}_3\text{N}$
- $\text{K}_2\text{S}$
- $\text{SnCl}_4$
- $\text{BaSO}_4$
- $\text{OF}_2$
- $\text{Ca}(\text{NO}_3)_2$
- $\text{Fe}_2\text{O}_3$
- $\text{HClO}$
- $\text{HClO}_3$

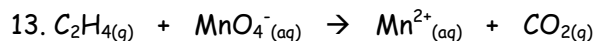
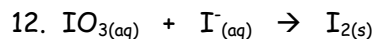
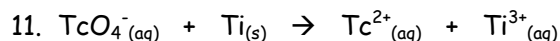
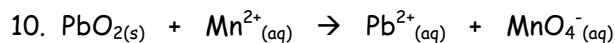
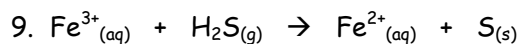
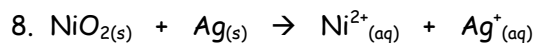
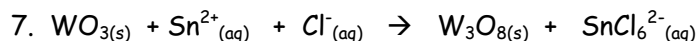
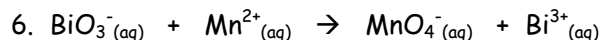
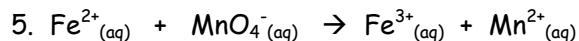
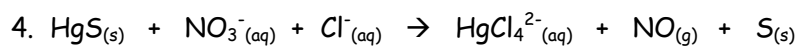
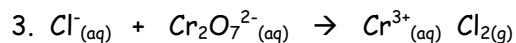
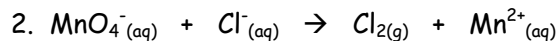
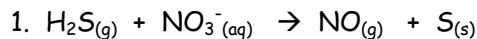
2. Indicate the oxidation number of the ***italicized*** element in the following ions:

- $\text{PO}_4^{3-}$
- $\text{BO}_3^{3-}$
- $\text{ZrI}_3^-$
- $\text{IO}_3^-$
- $\text{AsO}_3^{3-}$
- $\text{HCO}_3^-$
- $\text{NH}_4^+$
- $\text{NO}_3^-$
- $\text{SO}_4^{2-}$
- $\text{P}_3\text{O}_{10}^{5-}$
- $\text{S}_2\text{O}_3^{2-}$

3. Indicate the oxidation number of the ***italicized*** element in the following compounds:

- $\text{PCl}_3$
- $\text{PCl}_5$
- $\text{POCl}_2$
- $\text{SO}_2$
- $\text{SO}_3$
- $\text{SCl}_2$
- $\text{CrCl}_3$
- $\text{K}_2\text{CrO}_4$
- $\text{Cr}_2\text{O}_3$
- $\text{MnO}_2$
- $\text{KMnO}_4$
- $\text{Mn}_2\text{O}_7$

Balance the following equations that are in **acidic** solution:



Balance the following equations that are in **basic** solution:

