Name: _____ Period ___ Date ___/___/___

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OXIDATION-REDUCTION EQUATIONS

PROBLEMS: Balance these equations:

1. $HNO_3 + S \rightarrow NO_2 + H_2SO_4 + H_2O$

2. $KMnO_4 + HCl + H_2S \rightarrow KCl + MnCl_2 + S + H_2O$

3. $FeCl_3 + H_2S \rightarrow FeCl_2 + HCl + S$

4. $HCl + HNO_3 \rightarrow HOCl + NO + H_2O$

5. $SnCl_4 + Fe \rightarrow SnCl_2 + FeCl_3$

6. $Cu + NO_3^- \rightarrow Cu^{2+} + NO_2$ (acidic)

7. $Cl^- + MnO_2 \rightarrow Mn^{2+} + Cl_2$ (acidic)

8. $MnO_4^- + Cl^- \rightarrow Mn^{2+} + Cl_2$ (acidic)

9. $Fe^{2+} + Cr_2O_7^{2-} \rightarrow Fe^{3+} + Cr^{3+}$ (acidic)

10. $Hg + NO_3^- \rightarrow Hg^{2+} + NO$ (acidic)