

AP CHEMISTRY: OXIDATION / REDUCTION MORE PRACTICE BEFORE THE TEST:

1. Determine the oxidation number for each of the elements in the compound:

a. TeF_6^{-2}

$$\begin{array}{r} \text{Te} (1) + 4 = +4 \\ \text{F} (6) - 1 = -6 \\ \hline -2 \end{array}$$

b. NO_2^{-1}

$$\begin{array}{r} \text{N} : (1) + 3 = +3 \\ \text{O} : (2) - 2 = -4 \\ \hline -1 \end{array}$$

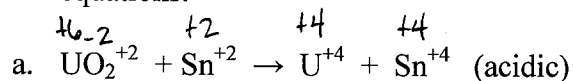
c. $\text{C}_6\text{H}_{12}\text{O}_6$

$$\begin{array}{r} \text{C} : (6) + 4 = +24 \\ \text{H} : (12) - 1 = -12 \\ \text{O} : (6) - 2 = -12 \\ \hline 0 \end{array}$$

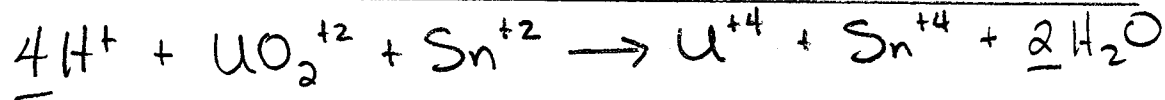
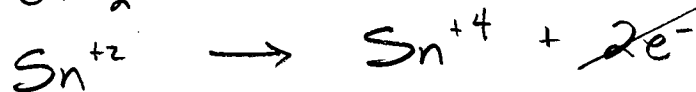
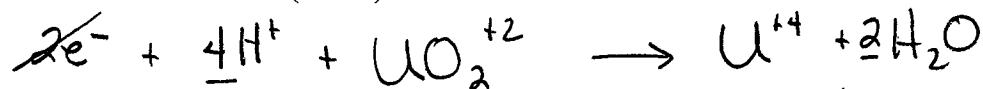
d. $\text{Na}_2\text{Fe}_2\text{O}_4$

$$\begin{array}{r} \text{Na} : (2) + 1 = +2 \\ \text{Fe} : (2) + 3 = +6 \\ \text{O} : (4) - 2 = -8 \\ \hline 0 \end{array}$$

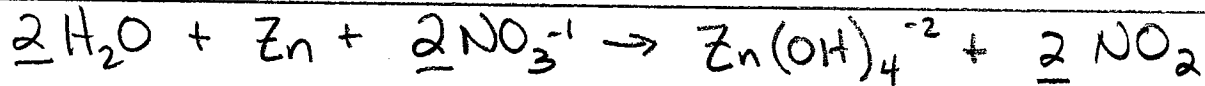
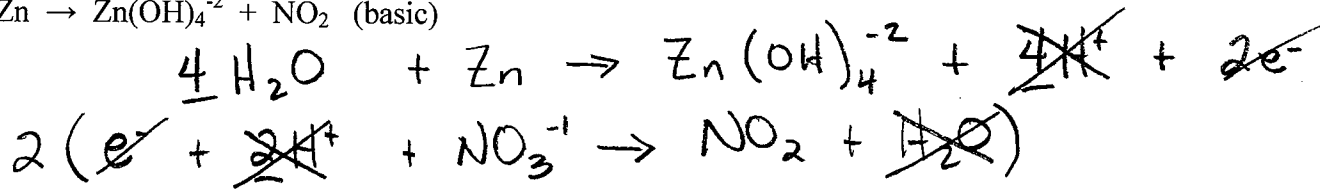
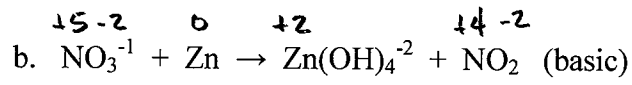
2. Determine what is oxidized, reduced, the oxidizing agent and the reducing agent – THEN Balance each of the following REDOX equations.



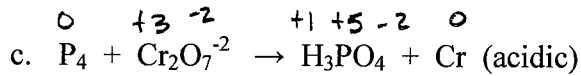
OX: Sn^{+2} ; REDUCED: U^{+6} ; Ox AGENT: UO_2^{+2} ; RED AG: Sn^{+2}



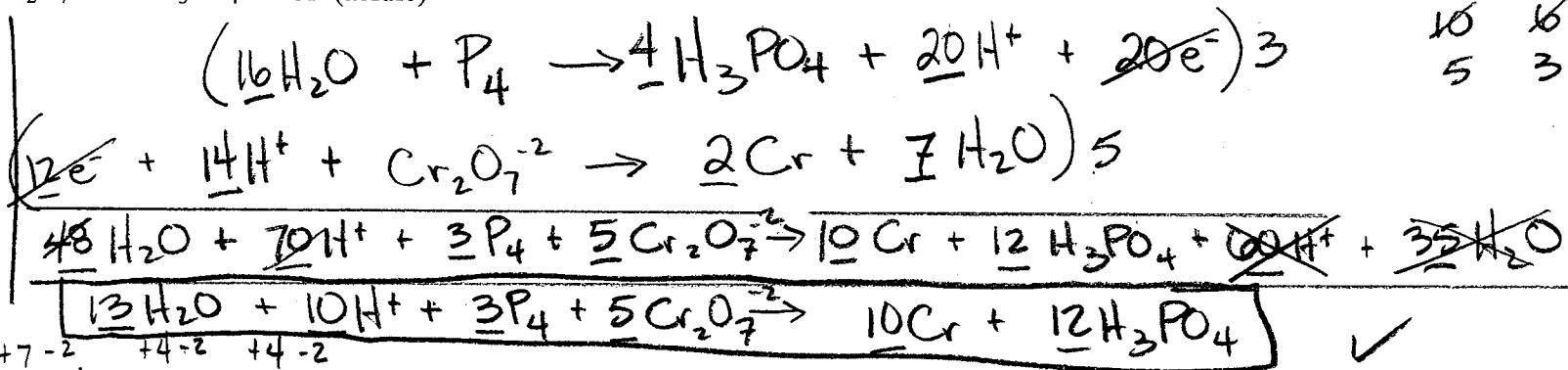
OX: Zn^0 , REDUCED: N^{+5} ; OX AGENT: NO_3^- ; RED AGENT: Zn^0



✓



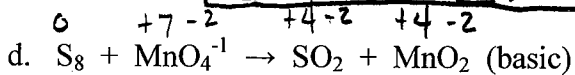
OX: P^0
 REDUCED: Cr^{+3}
 OX AGENT: $Cr_2O_7^{2-}$
 RED AGENT: P_4



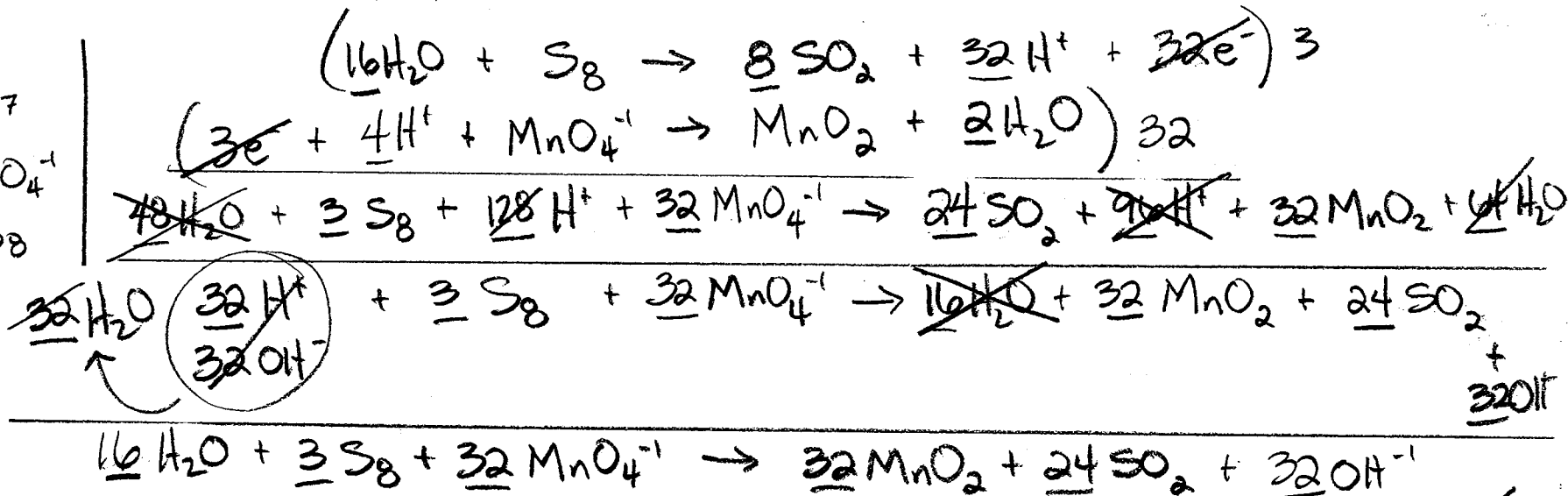
20 12
10 16
5 3

NO H^+ !

✓

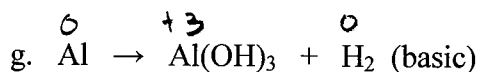
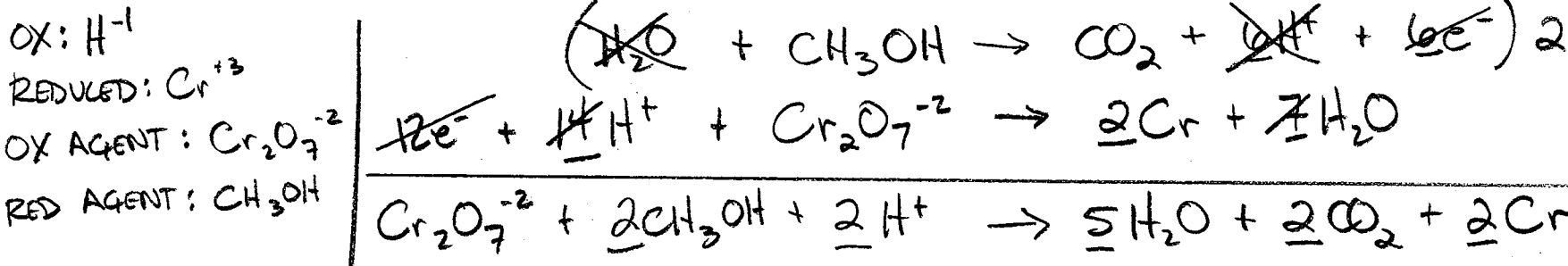
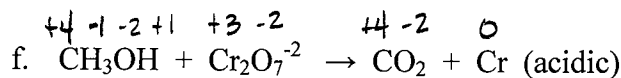
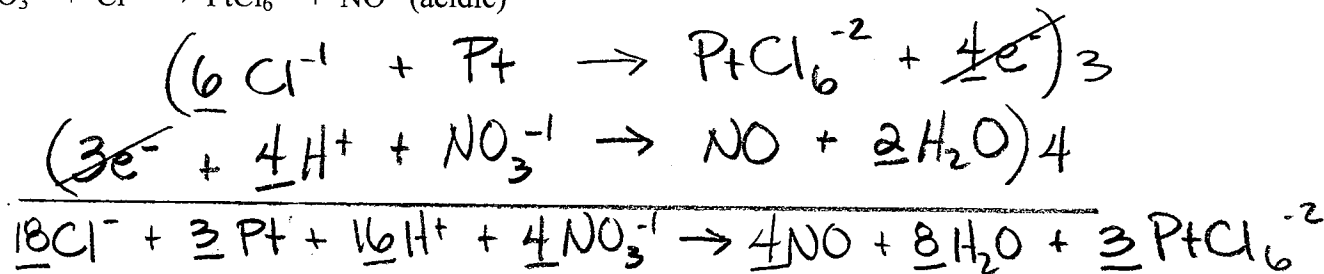
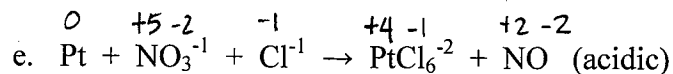


OX: S^0
 REDUCED: Mn^{+7}
 OX AGENT: MnO_4^-
 RED AGENT: S_8

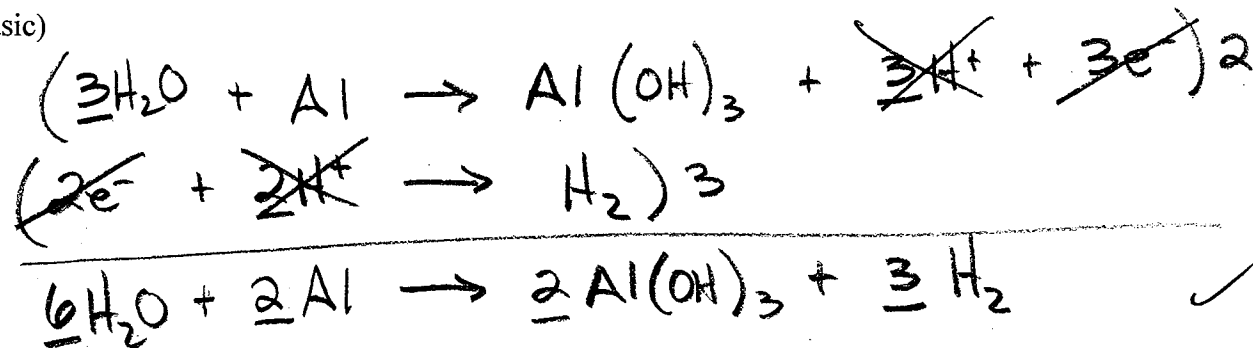


✓

OX: Pt^0 , REDUCED: N^{+5} , OX AGENT: NO_3^{-1} , RED AGENT: Pt^0



OX: Al^0
 RED: H^+
 OX AGENT: H_2O
 RED AGENT: Al



NO H^+ !