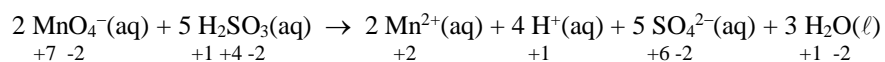


OXIDATION NUMBER REVIEW SHEET (not to be turned in)

1) For each of the following substances assign all of the oxidation numbers.

- a) H_2SO_4 H +1 S +6 O -2
- b) PO_4^{3-} P +5 O -2
- c) CHCl_3 C +2 H +1 Cl -1
- d) PF_5 P +5 F -1
- e) SiH_4 Si +4 H -1
- f) KMnO_4 K +1 Mn +7 O -2
- g) $\text{Ti}(\text{SO}_4)_2$ Ti +4 S +6 O -2
- h) P_4 P 0
- i) H_2O_2 H +1 O -1
- j) NaHCO_3 Na +1 H +1 C +4 O -2
- k) AsO_2^- As +3 O -2
- l) XeF_6 Xe +6 F -1

2) For the following reaction, identify the oxidation and reduction taking place, the oxidizing agent, and the reducing agent.



oxidation S, from +4 to +6

reduction Mn, from +7 to +2

oxidizing agent MnO_4^- reducing agent H_2SO_3

The oxidizing agent is the species being reduced, and the reducing agent is the species being oxidized.