

Name:

Section:

Date:

5.3A HONORS HOMEWORK – INTRODUCTION TO OXIDATION AND REDUCTION

1. Write half-equations to show the following changes, and indicate whether they represent oxidation or reduction:

Mg losing two electrons	$\text{Mg} \rightarrow \text{Mg}^{2+} + 2\text{e}^-$	oxidation
Cl_2 turning into 2Cl^-	$\text{Cl}_2 + 2\text{e}^- \rightarrow 2\text{Cl}^-$	reduction
Tl^+ losing two electrons	$\text{Tl}^+ \rightarrow \text{Tl}^{3+} + 2\text{e}^-$	oxidation
2H^+ becoming H_2	$2\text{H}^+ + 2\text{e}^- \rightarrow \text{H}_2$	reduction
V^{2+} losing one electron	$\text{V}^{2+} \rightarrow \text{V}^{3+} + \text{e}^-$	oxidation
Al^{3+} gaining three electrons	$\text{Al}^{3+} + 3\text{e}^- \rightarrow \text{Al}$	reduction
2O^{2-} becoming O_2	$2\text{O}^{2-} \rightarrow \text{O}_2 + 4\text{e}^-$	oxidation

2. Complete the following table to show the name and formula of some common ionic compounds:

Name	Formula
magnesium oxide	MgO
iron (II) chloride	FeCl_2
lead (IV) oxide	PbO_2
Lead (II) oxide	PbO
lead (II) chloride	PbCl_2
aluminum chloride	AlCl_3
iron (III) nitrate	$\text{Fe}(\text{NO}_3)_3$
Iron (II) sulfate	FeSO_4