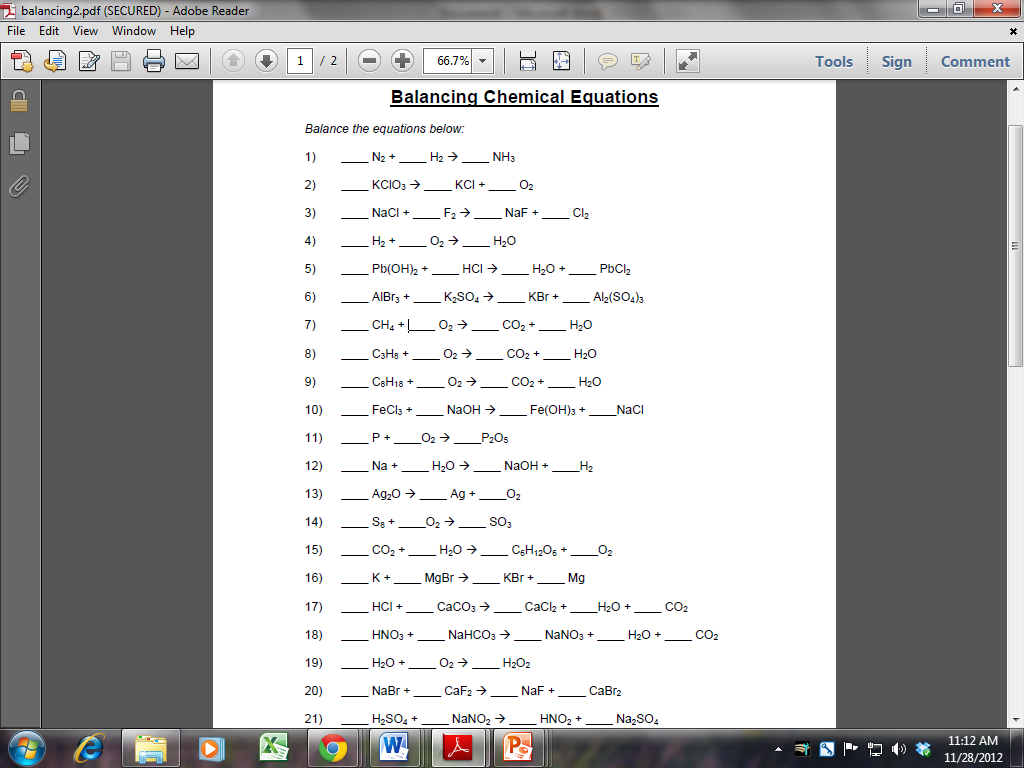
**Balancing Handout Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Period \_\_\_\_\_\_\_\_**

Write the correct formulas and balance the equations.

1. lithium oxide + water → lithium hydroxide
2. lead(II) nitrate → lead(II) oxide + nitrogen dioxide + oxygen
3. gold(III) sulfide + hydrogen → gold + hydrosulfuric acid
4. mercury(I) carbonate → mercury + mercury(II) oxide + carbon dioxide
5. chlorine dioxide + water → chlorous acid + chloric acid
6. potassium oxide + carbon dioxide → potassium carbonate
7. manganese(IV) oxide + hydrochloric acid → manganese(II) chloride + water + chlorine
8. ammonium dichromate → water + chromium(III) oxide + nitrogen
9. ammonium chloride + calcium hydroxide → calcium chloride + ammonia + water
10. sulfuric acid + sodium bicarbonate → sodium sulfate + carbon dioxide + water
11. calcium phosphate + sulfuric acid → calcium sulfate + calcium dihydrogen phosphate
12. phosphoric acid + hydrochloric acid → phosphorus pentachloride + water
13. hydrochloric acid + potassium carbonate → potassium chloride + water + carbon dioxide
14. iron(III) oxide + hydrogen → iron + water
15. aluminum + oxygen → aluminum oxide
16. magnesium + nitrogen → magnesium nitride
17. potassium chlorate → potassium perchlorate + potassium chloride



**Balancing Handout Key**

One point per correct formula and one point for correctly balancing the reaction (all the correct coefficients). Circle all incorrect formulas in red. If only the balancing is incorrect, write “balance.” Put positive points out to the left hand side.

1. Li2O +  H2O → **2** LiOH
2. **2** Pb(NO3)2 → **2** PbO + **4** NO2 +O2
3. Au2S3 + **3** H2 → **2** Au+ **3** H2S
4. \_\_\_\_ Hg2CO3 → \_\_\_\_ Hg + \_\_\_\_ HgO + \_\_\_\_ CO2
5. **2** ClO2 + \_\_\_\_ H2O → \_\_\_\_ HClO2 + \_\_\_\_ HClO3
6. \_\_\_\_ K2O + \_\_\_\_ CO2 → \_\_\_\_ K2CO3
7. \_\_\_\_ MnO2 + **4** HCl → \_\_\_\_ MnCl2 + **2** H2O + \_\_\_\_ Cl2
8. \_\_\_\_ (NH4)2Cr2O7 → **4** H2O + \_\_\_\_ Cr2O3 + \_\_\_\_ N2
9. **2** NH4Cl + \_\_\_\_ Ca(OH)2 → \_\_\_\_ CaCl2 + **2** NH3 + **2** H2O
10. \_\_\_\_ H2SO4 + **2** NaHCO3 → \_\_\_\_ Na2SO4 + **2** CO2 + **2** H2O

After this point, I no longer give you the balanced equation – all of the blanks are things that you need to fill in

1. \_\_\_\_ Ca3(PO4)2 + \_\_\_\_ H2SO4 → \_\_\_\_ CaSO4 + \_\_\_\_ Ca(H2PO4)2
2. \_\_\_\_ H3PO4 + \_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ → \_\_\_\_ PCl5 + **4** \_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_ HCl + \_\_\_\_ K2CO3 → \_\_\_\_ KCl + \_\_\_\_ \_\_\_\_\_\_\_\_\_ + \_\_\_\_ \_\_\_\_\_\_\_\_\_
4. \_\_\_\_ Fe2O3 + \_\_\_\_ H2 → \_\_\_\_ Fe + \_\_\_\_ H2O
5. \_\_\_\_ \_\_\_\_\_\_\_\_\_ + \_\_\_\_ \_\_\_\_\_\_\_\_\_ → \_\_\_\_ Al2O3
6. \_\_\_\_ \_\_\_\_\_\_\_\_\_ + \_\_\_\_ \_\_\_\_\_\_\_\_\_ → \_\_\_\_ Mg3N2
7. \_\_\_\_ KClO3 → \_\_\_\_ KClO4 + \_\_\_\_ KCl

