Stoichiometry review 2

1. Name:
   1. KI \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. SnBr2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. PCl3  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. CrPO4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Determine the formula for:

1. lead (II) sulfate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. ammonium chromate \_\_\_\_\_\_\_\_\_\_\_\_\_
3. sodium sulfide \_\_\_\_\_\_\_\_\_\_\_\_\_
4. sodium hydroxide \_\_\_\_\_\_\_\_\_\_\_\_\_
5. Balance:
   1. P4O10 + H2O 🡪 H3PO4 b. C4H10 + O2 🡪 CO2 + H2O
6. How many moles of sodium correspond to 3.56x1026 atoms of sodium?
7. How many moles of H2 and N2 can be formed by the decomposition of 0.250 mol of ammonia, NH3?
8. The incandescent white of a fireworks display is caused by the reaction of phosphorous(P4) with O2 to give P4O10. (you must use the gram ratio)
   1. Write the balanced chemical equation for the reaction: & write out the balance gram ratio below it:
   2. How many grams of O2 are needed to combine with 7.75g of P4?

* 1. How many grams of P4O10 can be made from 6.00g of O2?
  2. How many grams of P4 are needed to make 7.46g P4O10?

1. Consider this neutralization reaction: **2 HCl + Mg(OH)2 → MgCl2 + 2 H2O**

**What mass of Mg(OH)2 is required to neutralize 4 moles of HCl?**