Answers to problems in page 304

Answers to Practice Problems A

1. a. 0.670 mol O_2
   b. 1.34 mol H_2O
2. a. 6.60 mol Al
   b. 6.60 mol Fe
   c. 3.30 mol Al_2O_3

Homework — GENERAL

Additional Practice

1. How many moles of H_2CO_3 can form when 2.57 mol CO_2 reacts with excess H_2O?

   $H_2O(l) + CO_2(g) \rightarrow H_2CO_3(aq)$

   Ans. 2.57 mol H_2CO_3

2. How many moles of O_2 are necessary to completely burn 4.33 mol C_3H_8? How many moles of CO_2 form? How many moles of H_2O form?

   $C_3H_8(g) + 5O_2(g) \rightarrow 3CO_2(g) + 4H_2O(l)$

   Ans. 21.6 mol O_2; 13.0 mol CO_2; 17.3 mol H_2O

3. In the combustion of propane, how many moles of C_3H_8 are needed to combine completely with 2.96 mol O_2? How many moles of CO_2 form? How many moles of H_2O form? Ans. 0.592 mol C_3H_8; 1.78 mol CO_2; 2.37 mol H_2O

LS Logical