

CHAPTER 7	Mixed Stoichiometry Quiz	BLM 7.2.9
ASSESSMENT		

Below are stoichiometry problems involving solutions, gases, and pure substances:

1. Write the reaction for the formation of lithium phosphide from its elements.

(a) How many moles of lithium phosphide form when 3.2 mol of lithium react?

(b) How many grams of lithium react with 0.500 mol of phosphorus?

(c) How many grams of lithium react with 45.0g of phosphorus?

2. Write the reaction between solutions of mercury(II) nitrate and sodium sulfide.

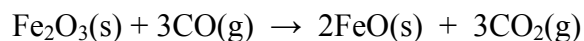
(a) How many moles of sodium nitrate form from the reaction of 2.85 mol of sodium sulfide?

(b) How many litres of 0.150 mol/L mercury(II) nitrate react with 0.540 L of 0.653 mol/L sodium sulfide?

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(c) How many grams of precipitate would you get from the reaction of 1.00 L of 0.550 mol/L sodium sulfide with mercury(II) nitrate?

3. Given the reaction between iron(III) oxide and carbon monoxide below, answer the following questions:



(a) How many grams of iron(III) oxide will react with 27.3 L of carbon monoxide at 25.0 °C and 130.5kPa?

(b) How many grams of iron(II) oxide will form from the reaction of 10.7 g of iron(III) oxide?

(c) What volume of carbon monoxide needs to react under STP conditions for 40.8 L of carbon dioxide to form under the same conditions?