

Participation Assignment

CHEM 1100-General Chemistry II

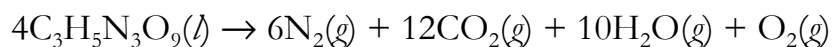
Name:

#1

Section: 31, TR

Due Date: Thursday 3/30/2017

1. Nitroglycerin decomposes according to the following equation:



a. Calculate the molar masses for nitroglycerin, carbon dioxide, and water.

b. Given 175 g nitroglycerin, calculate the mass of carbon dioxide produced.

2. What is the molarity of a solution made by dissolving 2.796 g KCl in enough water to make 250.0 mL of solution?

3. A sample of 6.44 g naphthalene, C_{10}H_8 , is dissolved in 80.1 g benzene, C_6H_6 . What is the mass fraction of each component in this solution?

4. Define each of the following:

a. solution

b. solute

c. solvent

d. mass fraction

e. mole fraction

f. molarity

g. molality

5. A sample of 6.44 g naphthalene, $C_{10}H_8$, is dissolved in 80.1 g benzene, C_6H_6 . What is the mole fraction of each component in this solution?

6. What is the molality of an aqueous hydrochloric acid solution that is 37.0 % (by mass) HCl?