Participation Assignment CHEM 1090-General Chemistry I

Name:

Section: 32, TR

Due Date: Thursday 2/13/2020

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1. A sample with a mass of 8.119 g contains 5.875 g iron and 2.244 g oxygen. What is the empirical formula?

2. Answer both parts using the following chemical equation:

 $4 \operatorname{KO}_2(s) + 2 \operatorname{CO}_2(g) \rightarrow 2 \operatorname{K}_2 \operatorname{CO}_3(s) + 3 \operatorname{O}_2(g)$

a. Calculate the mass of O_2 produced from 8.000 g CO_2 and an excess of KO_2 .

b. Calculate the mass of O₂ produced from 8.000 g KO₂ and an excess of CO₂.