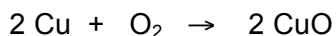


Stoichiometry Worksheet #1

Problem #1

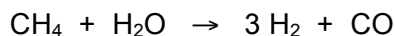
Copper (II) oxide can be produced in the lab by the following reaction



A technician heats 5.00 g Cu powder in an open crucible. How many grams of CuO will be produced?

Problem #2

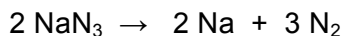
Methane gas, CH₄, reacts with water vapour at elevated temperatures to produce hydrogen and carbon monoxide as illustrated by the following balanced equation



What mass of methane is required to produce 125 g of H₂?

Problem #3

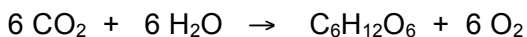
Air bags inflate rapidly in the event of a crash, cushioning the front seat occupants against impact. The reaction is represented by the following equation in which sodium azide, NaN₃, decomposes



Determine the mass of N₂ produced when 100.0 g NaN₃ decomposes.

Problem #4

In the process *photosynthesis*, plants convert CO₂ (g) into O₂ (g) in the presence of daylight. The equation below represents this process.



How many grams of O₂ can be obtained when 11.0 g CO₂ (g) reacts?

Answers

1. 6.26 g
2. 331 g
3. 64.63 g
4. 8.00 g