Stoich HW #1 name

Balance this equation with phase symbols:
Lithium metal reacts with phosphoric acid, releasing hydrogen gas and a new solution of lithium phosphate.

_____ + _____ → _____ + _____

When 548.2 g of lithium completely reacts, how many formula units of lithium phosphate form?

When 4.91×10^{24} atoms of lithium completely react, how many liters of H_2 gas form?

Stoich HW #2

name

This is the synthesis of ammonia: $N_{2(G)} + 3H_{2(G)} \rightarrow 2NH_{3(G)}$

How many grams of ammonia form when 71.60 moles of $N_{2(G)}$ react?

How many liters of nitrogen are needed to react with 12.65 moles of H_2?

How many moles of NH_3 form at the same time 8.32×10^{24} molecules of H_2 gas reacts?

Stoich HW #3

name

Carbon disulfide is an industrial solvent. It is prepared by the reaction of solid carbon and sulfur dioxide gas forming into solid carbon disulfide & carbon monoxide gas.

Balance this equation with phase symbols

_____ + _____ → _____ + _____

How many moles of carbon disulfide form when 6.35 moles of carbon react?

How many moles of carbon are needed to react are needed to react with 5.44 moles of SO_2?

How many moles of carbon monoxide form at the same time 0.246 moles carbon disulfide form?

How many moles of sulfur dioxide are needed to make 118 moles of carbon disulfide?