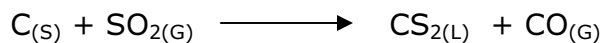




Read Stoich BASICS. These are simple 1 step conversion math problems. They are sometimes called Moles To Moles problems. They require just a balanced equation and no conversions to solve. DO ALL FOUR PROBLEMS with PLENTY of room to show all work. Put your answers in a BOX.

Carbon disulfide is an important industrial solvent. It is prepared by the reaction of solid carbon and sulfur dioxide gas this way:



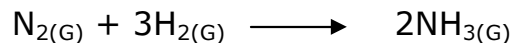
- A. Balance this equation, and then write the word equation for it.
- B. What is the MOLE RATIO for this reaction?
- C. How many moles of carbon disulfide form when 2.7 moles of carbon react?
- D. How many moles of carbon are needed to react with 5.44 moles of SO_2 ?
- E. How many moles of carbon monoxide form at the same time 0.246 moles carbon disulfide form?
- F. How many moles of sulfur dioxide are needed to make 118 moles of carbon disulfide?

Stoich HW #2 name: _____

These are 2 STEP problems, not just moles to moles, but an additional step either before, or after the mole ratio math. You must show ALL math and ratio!
Watch SF



Ammonia is formed by combining H₂ gas with N₂ gas, as shown in this balanced chemical equation:



- A. How many grams of ammonia form when 512 moles of N_{2(G)} react?
- B. How many liters of nitrogen are needed to react with 2.2 moles of H₂?
- C. How many moles of NH₃ form at the same time 8.32 x 10²⁴ molecules of H₂ gas reacts?



Zinc reacts with $\text{HCl}_{(\text{AQ})}$ releasing hydrogen gas while forming a new solution.

1. Write the balanced chemical equation for this single replacement reaction.
2. You start with 548 g of Zn + sufficient acid to completely react all of the zinc.
How many formula units of zinc chloride form?
3. How many grams of zinc are required to produce 944 liters of H_2 gas?
4. If 4.91×10^{24} atoms of zinc completely react, how many liters of H_2 gas form?