## Answer on Question\#50360 - Chemistry - Other

If an excess of nitrogen gas reacts with 250 L of hydrogen gas, according to the reaction below, how many $L$ of ammonia will be produced?
$\mathrm{N} 2(\mathrm{~g})+3 \mathrm{H} 2(\mathrm{~g})$---> 2NH3(g)

## Solution:

According to the Gay-Lussacc's law:
$\mathrm{V}(\mathrm{H} 2): \mathrm{V}(\mathrm{NH} 3)=3: 2$;
$\frac{250}{x}=\frac{3}{2} ; x=166.7 \mathrm{~L}$
$V(N H 3)=166.7 \mathrm{~L}$
Answer: 166.7 L

