

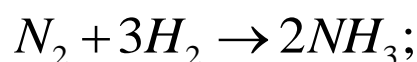
## Answer on Question #60210 - Chemistry - General Chemistry

### Task:

When ammonia is prepared from nitrogen gas and hydrogen gas, 36 grams are produced. The theoretical yield was expected to be 41 grams. What is the percentage yield?

### Solution:

Reaction prepared ammonia from nitrogen gas and hydrogen gas:



Formula to find percentage yield:

$$\text{Percentage yield} = \frac{\text{Actual yield}}{\text{Theoretical yield}} \times 100\%;$$

Since [actual yield of ammonia] = 36 g and [theoretical yield of ammonia] = 41 g, the:

$$\text{Percentage yield} = \frac{36 \text{ grams}}{41 \text{ grams}} \times 100\% = 87.80\% \approx 88\%;$$

### Answer:

The percentage yield is 87.80%  $\approx$  88%.