Study Guide Answers: stoichiometry

$$N_2 = 3H_2 \rightarrow 2NH_3$$

Use ratios of coefficients in the above balanced equation to answer the following:

- 1. 1 mole N₂ will form <u>2</u> moles NH₃.
- 2. 8 moles N₂ will form <u>16</u> moles NH₃.
- 3. 1/2 mole N₂ will form <u>1</u> mole NH₃.
- 4. .2 mole N₂ will form moles <u>0.4</u> NH₃.
- 5. 1 mole N₂ will react totally with <u>3</u> moles H₂.
- 6. 4 moles N_2 will react totally with $\underline{12}$ moles H_2 .
- 7. 1/3 mole N_2 will react totally with 1_moles H_2 .
- 8. .2 mole N₂ will react totally with <u>0.6</u> moles H₂.
- 9. 3 moles of H₂ will form <u>2</u> moles NH₃.
- 10. 6 moles of H₂ will form <u>4</u> moles NH₃.
- 11. <u>1.5</u> moles H₂ will form 1 mole NH₃.
- 12. <u>12</u> moles H₂ will form 8 moles NH₃.
- 13. 4.2 moles N₂ will form <u>8.4</u> moles NH₃.
- 14. <u>46</u> moles N₂ will form 92 moles NH₃.
- 15. 0.4 moles N₂ will totally react with <u>1.2</u> moles H₂
- 16. 15 moles will totally react with <u>45</u> moles H₂
- 17. <u>1/3</u> moles N₂ will totally react with 1 mole H₂
- 18. $\underline{8}$ moles N_2 will totally react with 24 moles H_2 v
- 19. <u>18</u> moles H₂ will form 12 moles NH₃
- 20. <u>0.3</u> moles H₂ will form .2 moles NH₃