Chemistry
Study Guide: Stoichiometry 2

$N_2(g) = 3H_2(g) \rightarrow 2NH_3(g)$

1 mole N_2 = _____ g N_2 **1 mole H_2 = _____ g H_2** **1 mole NH_3 = _____ g NH_3**

1. 28g N_2 = _____ moles N_2 = _____ moles NH_3 = _____ g NH_3
2. 14g N_2 =_____ moles N_2 =_____ moles NH_3 = _____ g NH_3
3. 280g N_2 =_____ moles N_2 =_____ moles H_2 = _____ g H_2
4. 140g N_2 =_____ moles N_2 =_____ moles NH_3 = _____ g NH_3
5. 6g H_2 =_____ moles H_2 =_____ moles NH_3 = _____ g NH_3
6. 24g H_2 =_____ moles H_2 =_____ moles NH_3 = _____ g NH_3
7. 2g H_2 =_____ moles H_2 =_____ moles NH_3 = _____ g NH_3
8. 18g H_2 =_____ moles H_2 =_____ moles N_2 = _____ g N_2
9. 17g NH_3=_____ moles NH_3=_____ moles N_2 = _____ g N_2
10. 170g NH_3=_____ moles NH_3=_____ moles N_2 = _____ g N_2

1 mole of a gas @ STP = _____ L

11. 22.4 L N_2 =_____ moles N_2=_____moles NH_3=_____ L NH_3
12. 11.2 L N_2 =_____ moles N_2=_____moles NH_3=_____ L NH_3
13. 134.4 L H_2 =_____ moles H_2=_____moles NH_3=_____ L NH_3
14. 33.6L N_2 =_____ moles N_2=_____moles H_2=_____ L H_2
15. 2.24 L NH_3 =_____ moles NH_3=_____moles N_2=_____ L N_2

1 mole = _____ particles

16. 6 x 10^{23} molecules N_2 =_____ moles N_2 =_____moles H_2= _____ molecules H_2
17. 3 x 10^{23} molecules N_2 =_____ moles N_2 =_____moles NH_3 = _____ molecules NH_3
18. 36 x 10^{23} molecules H_2 =_____ moles H_2 =_____moles NH_3 = _____ molecules NH_3
19. 60 x 10^{23} molecules N_2 =_____ moles N_2 =_____moles H_2= _____ molecules H_2
20. 15 x 10^{23} molecules N_2 =_____ moles N_2 =_____moles H_2= _____ molecules H_2
21. 56g N_2 = _____ g H_2
22. 44.8 L N_2 =_____ L NH_3
23. 12 x 10^{23} molecules N_2 =_____molecules H_2

2 mole 6 mole