Answers to problems 27-36 in page 330

Practice Problems

- **27. a.** 6.6 mol H₂
 - b. 3.36 mol O2
 - c. 8.12 mol H₂
- **28. a.** $1.63 \times 10^3 \text{ mol H}_2\text{O}$
 - **b.** $2.90 \times 10^3 \text{ mol N}_2\text{H}_4$
 - **c.** $6.39 \times 10^3 \text{ mol N}_2$
- 29. a. 1.08 mol O₂
 - **b.** 2.62 mol Al₂O₃
 - c. 1.99 mol Al₂O₃
- 30. a. 273 g H₂O
 - **b.** 58.1 g CaC₂
 - **c**. 26.9 g H₂O
- 31. a. 49.0 g O₂
 - b. 748 g KClO₃
 - c. 12.7 g KCl
- **32.** 73.3 g Al₂O₃
- **33.** 107 g O₂
- **34. a.** 1.68 L O₂
 - **b.** 0.153 g KClO₃
 - **c.** 1.51×10^4 mL O_2
- 35. a. 113 L O₂
 - **b.** 25 L O₂
 - c. 7.41 L O₂
- **36. a.** 1.34×10^{24} molecules NO₂
 - **b.** 9.67×10^{23} molecules NO
 - c. 1.88×10^{22} molecules O_2