## Hill-Petrucci Homework Answers

Page 207 # 6-10 Page 209 # 53,54,57,59,73,76,89

- 6. a. Volume will decrease.
  - b. Volume will decrease
  - c. The effect is uncertain, as the increase in pressure will cause a volume decrease, and the increase in temperature will cause a volume increase.
  - d. The volume will increase.
- 7. a. The pressure will increase.
  - b. The pressure will increase.
  - c. The pressure will increase.
  - d. The effect is uncertain.
- 8. The speeds decrease as the temperature decreases.
  The pressure decreases as the walls are hit less often.
- 9. a. Increase V
  - b. Decrease V
  - c. Decrease V
  - d. Decrease V
- 10.  $d PF_3$
- 53. a. 46.9L
  - b. 26.9atm
  - c. 8.64 mg H<sub>2</sub>
  - d. 248 kPa
- 54. a.  $1.06 \times 10^3$  Torr
  - b. 512 mL
  - c. 249 kg
  - d. 0.836 psi
- 57. 71.5 L
- 59. 178 u
- 73.  $O_2$  is limiting. 4.50 L  $SO_3$
- 76. 8.78%
- 89. b