

Chapter 14

14.2

$$W = 750 \text{ J}$$

14.8

$$W = 8.8 \text{ J}$$

14.9

$$W = \frac{1}{4} P_i V_i$$

14.18

$$W_{AC} = -5500 \text{ J}, Q_{AC} = -5500 \text{ J}$$

14.32

$$P_i = 182 \text{ Pa}$$

14.40

$$P_f = 2.64 \text{ atm}, T_f = 360^\circ\text{K}$$

14.52

$$e = 25\%$$

14.54

$$e_c = 44.6\%$$

14.62

$$P = 6400 \times 10^3 \text{ W}$$

14.90

$$\Delta S_L = -\frac{Q_L}{T_L} = -\frac{W_i [T_L / (T_H - T_L)]}{T_L}$$

$$\Delta S_L = -0.074 \text{ J/K}$$