

P #A

Ch 12 Worksheet

$$P = 6000 \text{ Pa}$$

$$\Delta V = (.150 \text{ m}^2)(-.20 \text{ m}) = -.03 \text{ m}^3$$

$$W = P \cdot \Delta V \\ = (6000 \text{ Pa})(-.03 \text{ m}^3)$$

$$W = +180 \text{ J}$$

b)

$$W = +180 \text{ J}$$
$$\Delta U = -8.00 \text{ J}$$

$$\Delta U = Q + W$$

$$-8 \text{ J} = Q + 180 \text{ J}$$

$$Q = -188 \text{ J}$$