

11.)

B -

Volu

$\frac{P_B}{T_B}$

$\frac{P_B}{T_B}$

A ->

Pressu

$\frac{P_A}{T_A} =$

B.) A -

$w =$

$=$

$I = 0.6$

B -> C

$w = \int p$

$I = 0$

C -> A

$w = - \int$

9.) Kinematics  
Conservation of energy (spring)

$$\Delta x = .011 \text{ m}$$

$$k = 2.2 \text{ m}$$

$$V_f^2 = V_i^2 + 2ax$$

$$V_i = 2$$

$$U_{s1} + KE_1 = U_{s2} + KE_2$$

$$\frac{1}{2} kx + \frac{1}{2} m v_1^2 = \frac{1}{2} kx_2 + \frac{1}{2} m v_2^2$$

$$\frac{1}{2} kx = \frac{1}{2} m v_2^2$$

$$\frac{1}{2} k(.011) = \frac{1}{2} m v_2^2$$

$$0.0055k = \frac{1}{2} m v_2^2$$

$$2.2 - .27 = 1.93 \text{ m}$$

$$\frac{.011}{1.93} = \frac{\Delta x}{2.2}$$

$$0.0242 = 1.93 \Delta x$$

$$\Delta x = 0.0125 \text{ m}$$

