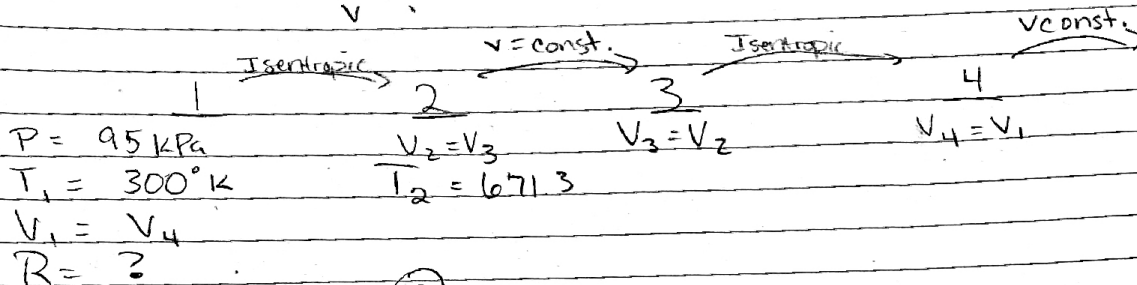
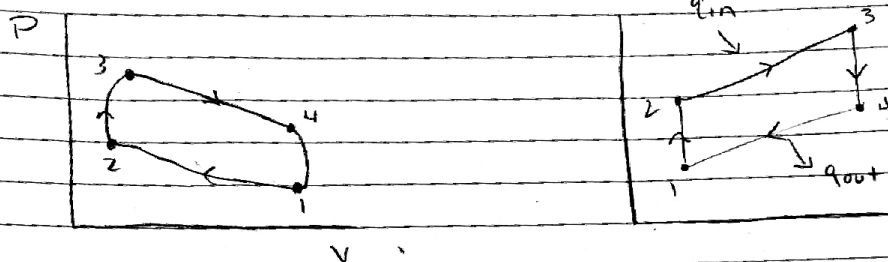


Thermal Apps. HW # 33, 36, 46, 57, 59, 80

Nick Maron
Thomas George

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① $300^\circ\text{K} \Rightarrow$ use Table A-17

$$u_1 = 214.07 \text{ kJ/kg}$$

$$v_{r1} = 621.2$$

$$\frac{1}{8} (621.2)$$

$$v_{r2} = 77.65$$

② $T_2 = ?$

A-17

$$670^\circ\text{K} \quad v_r = 78.61$$

$$680^\circ\text{K} \quad v_r = 75.50$$

$$670 (680 - 670) \left(\frac{v_{r2} - v_r(670)}{v_r(680) - v_r(670)} \right) = \frac{77.65 - 78.61}{75.50 - 78.61}$$

$$T_2 = 673.1^\circ\text{K}$$