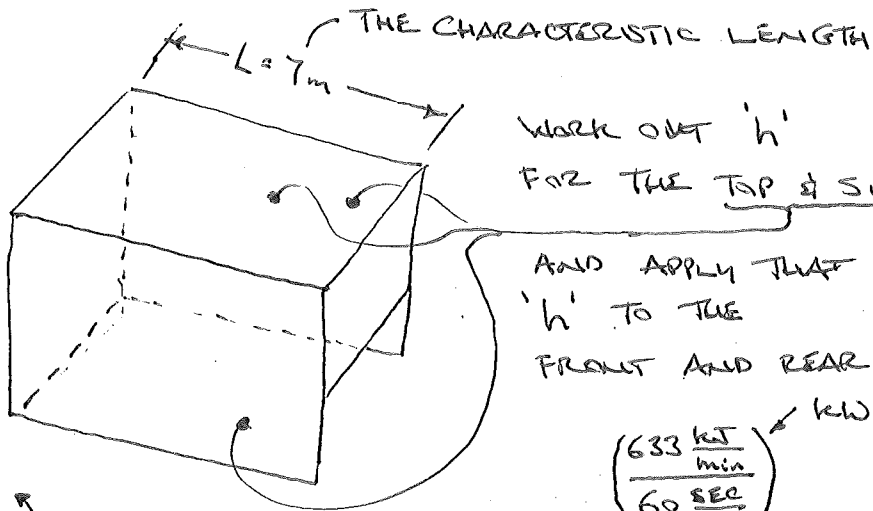


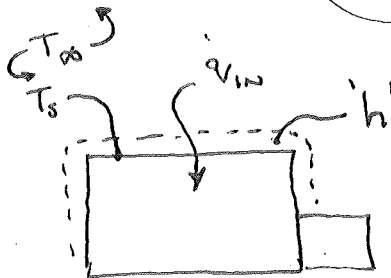
ASSIGNMENT 6 - HINTS

#1



WORK OUT 'h'
FOR THE TOP & SIDES

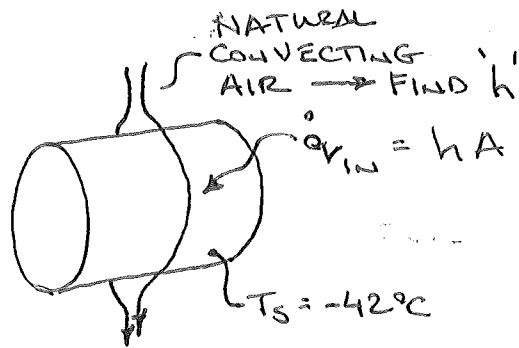
AND APPLY THAT
'h' TO THE
FRONT AND REAR.



$$\dot{Q}_{int} = \frac{\left(\frac{633 \text{ kJ}}{\text{min}} \right)}{60 \frac{\text{SEC}}{\text{min}}} = hA(T_{\infty} - T_s)$$

$\left(\frac{633 \text{ kJ}}{\text{min}} \right)$ ← kW
 $60 \frac{\text{SEC}}{\text{min}}$
 2 ← REFRIG. SYSTEM DUTY CYCLE
 = hA(T_∞ - T_s)
 ↑ SOLVE FOR THIS

#2



$$\dot{Q}_{in} = hA(T_{\infty} - T_s), \text{ kW} = \frac{\text{kJ}}{\text{s}}$$

TIME
NO TIME

ENERGY TO EVAPORATE ALL

$$\text{THE PROPANE} = Q = C_{EVAP} m_{\text{PROPANE}}, \text{ kJ}$$

$\frac{\text{kJ}}{\text{kg}}$ kg

$$\text{SO } \dot{Q}_{in} \times \frac{1}{C_{EVAP}} = \dot{Q}_{\text{PROPANE}}$$

↑ SOLVE FOR THIS.