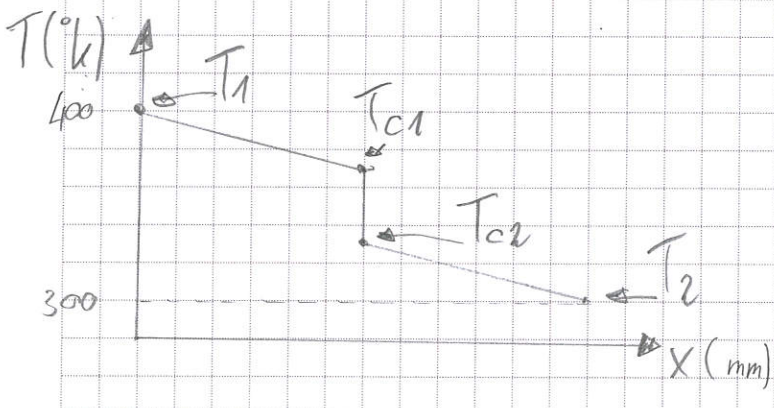
$A = 10'000\ mm^2 = 0,01\ m^2$

$\lambda_1 = 10\ \frac{W}{m°K}$

$\lambda_2 = 10\ \frac{W}{m°K}$

Thermal contact conductance coefficient $h_c = 20\ \frac{W}{m^2K}$



$q_1 = \lambda_1 \cdot \Delta T_1 / \Delta X \qquad \Delta T_1 = T_{c1} - T_1$

$q_2 = \lambda_2 \cdot \Delta T_2 / \Delta X \qquad \Delta T_2 = T_2 - T_{c2}$

$q_c = h_c \cdot \Delta T_c \qquad \Delta T_c = T_{c2} - T_{c1}$

$q = q_1 = q_2 = q_c \approx -1'430\ \frac{W}{m^2}$

$T_{c1} = 385,7\ °k$

$T_{c2} = 314,3\ °k$

Inventor NASTRAN

$q = 1'060\ W/m^2$

$T_{c1} \approx 389°k$, $T_{c2} \approx 311°k$ (interpolated)