I $\dot{Q}_{conv\,ex} = \alpha A \cdot (T_{aex} - T_{pex}) = 20\frac{W}{m^2K} \cdot 32m^2 (29,5°C - T_{pex}) = 640\frac{W}{K}(29,5°C - T_{pex})$

II $\dot{Q}_{conv\,int} = \alpha A \cdot (T_{pin} - T_{ain}) = 20\frac{W}{m^2K} \cdot 32m^2 (T_{pin} - 7,5°C)$

III $\dot{Q}_{cond} = \frac{\lambda \cdot A (T_{pex} - T_{pin})}{x} = \frac{0,5\frac{W}{mK} \cdot 32m^2 (T_{pex} - T_{pin})}{0,1m} = 160\frac{W}{K}(T_{pex} - T_{pin})$

I = II → $29,5°C - T_{pex} = T_{pin} - 7,5°C$

III → $T_{pin} = 37°C - T_{pex}$

IV en III → $\dot{Q}_{cond} = 160\frac{W}{K}(T_{pex} - (37°C - T_{pex}))$

V $\dot{Q} = 320\frac{W}{K} \cdot T_{pex} - 5920W$

I en I $320\frac{W}{K} \cdot T_{pex} - 5920W = 640\frac{W}{K}(29,5°C - T_{pex})$

$960\frac{W}{K} T_{pex} = 18880W + 5920W = 24800W$

→ $T_{pex} = \frac{24800W}{960\frac{W}{K}} = 25,83°C$

→ $T_{pin} = 11,17°C$

→ $\dot{Q}_{conv} = 640\frac{W}{K}(29,5°C - 25,83°C) = 2348,8W$

$\Delta T_{ex} = \Delta T_{in} = 29,5°C - 25,83°C = 3,7K$

$\Delta T_{int} = 11,17°C - 7,5°C = 3,67K$