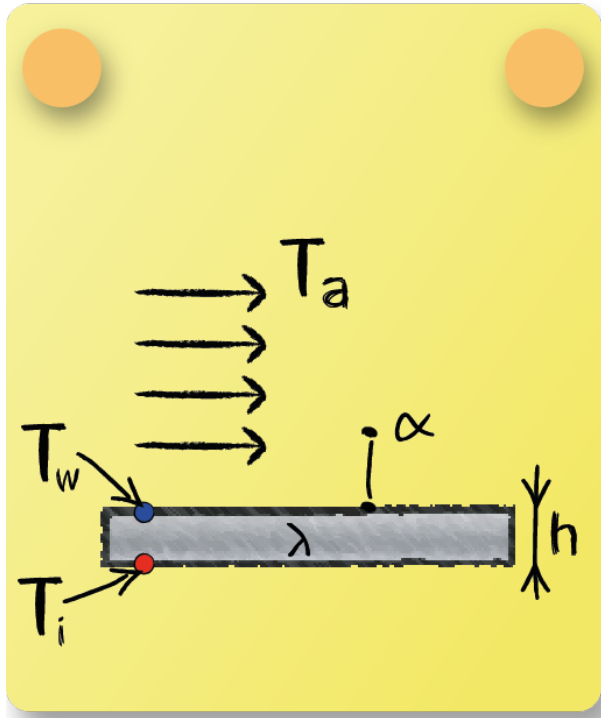


## Lecture 6 - Question 1



Which statement is true regarding the heat transfer for air blowing over a horizontal steel plate? Assume a steady state and one-dimensional heat transfer. The plates area is given to be  $A$ .

In case of a steady state conductive and convective heat fluxes must equal each other in order to satisfy energy conservation.



$$\dot{Q}_{\text{cond}} = \dot{Q}_{\text{conv}}$$

$$-\lambda A \frac{T_w - T_i}{h} = \alpha A (T_w - T_a)$$