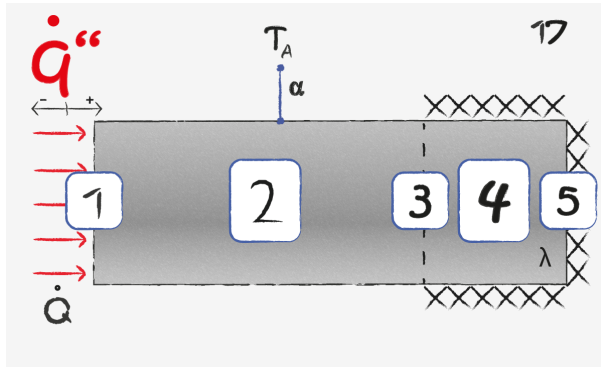




Axial Heat Flux: Task 17



The image describes a rectangular body with an imposed heat flux on the left and heat loss through convection. The right part is isolated from all directions.

1



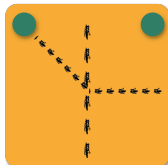
The imposed heat flux yields a positive profile.

2



Convection causes the specific heat flux to decrease. Due to temperature loss less heat is convected towards the right.

3



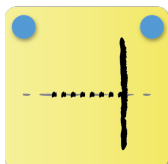
The transition is characterized by a kink from decrease to constant, since from here on walls are adiabatic.

4



Due to the isolation of any surrounding surface including the right boundary, no heat is conducted at all.

5



Specific heat flux remains zero to the right.