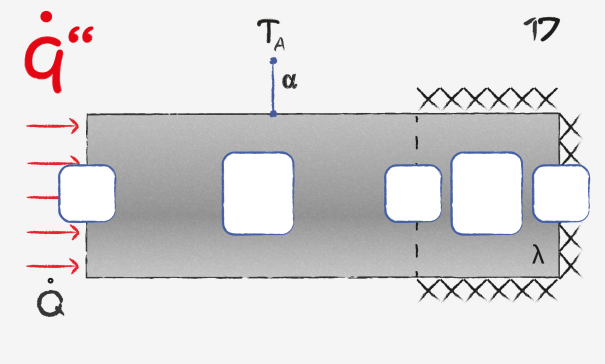
Heat Loss: Task 17



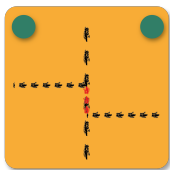
The image describes a rectangular body with an imposed heat flux on the left and heat loss through convection. The right section is isolated from all directions.

1 

The imposed heat flux yields a negative temperature gradient, which results in a decreasing convective heat loss.

2 

Convective heat loss is positive, since heat is brought into the system via conduction. Decreasing temperature difference of fin and environment causes a decrease of convective heat loss.

3 

Due to adiabatic walls, no heat is conducted into the right section, meaning the temperature gradient vanishes at the transition. Since walls are adiabatic from there on, heat loss jumps to zero.

4 

5