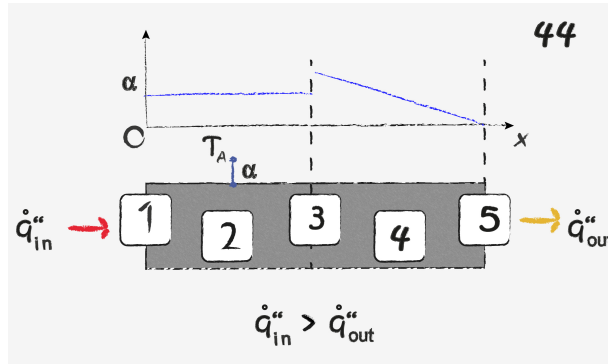




# Heat Conduction: Task 44



The image describes a rectangular body with constant heat conduction coefficient from the left to the middle part and then decreasing linearly to the right. The heat flows from left to right.

1



$\dot{q}''_{in}$  is larger than  $\dot{q}''_{out}$  such that the heat flows from left to right which means that the temperature decreases from left to right.

2



Due to heat loss through convection, the temperature gradient decreases from left to right.

4



Due to heat loss through convection, the temperature gradient decreases from left to right.

5



The gradient at the end of the material is negative due to the imposed heat flux.