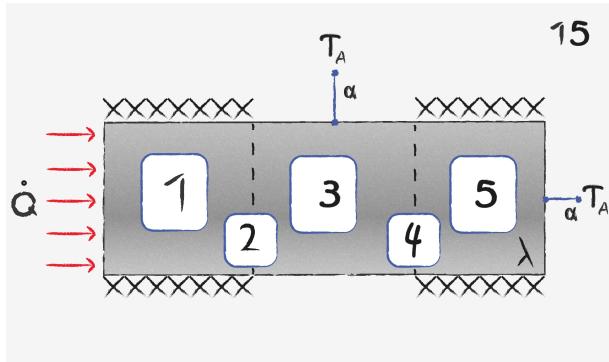


Heat Conduction: Task 15



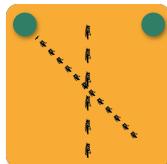
The image describes a rectangular body with a heat flux from left to right and heat loss through convection in the middle and right side. The walls on the top and bottom of the left and right side are adiabatic.

1



According to Fourier's law. At constant area and heat conductivity the temperature gradient decreases linearly from left to right.

2



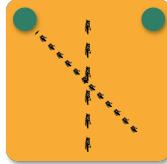
The heat conductivity and area don't change at the interface so the temperature gradient remains the same.

3



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

4



The heat conductivity and area don't change at the interface so the temperature gradient remains the same.

5



According to Fourier's law. At constant area and heat conductivity the temperature gradient decreases linearly from left to right.