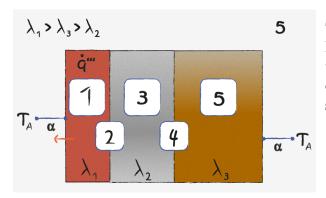


Heat Conduction: Task 5



The image describes a rectangular body with a heat source on the left side. The temperatures on the right and left side are the same.



Due to the Heat production and heat flux in both directions, there must be a maximum in the area 1 and since the thermal resistance to the left is smaller than to the right, then the temperature gradient to the left must be steeper



 λ_2 is smaller than λ_1 which means the Temperature gradient in 2 is steeper than in 1



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



 λ_2 is smaller than λ_3 which means the Temperature gradient in 2 is steeper than in 3



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