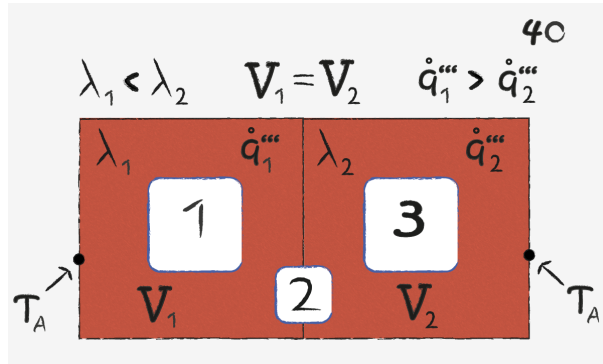


Heat Conduction: Task 40



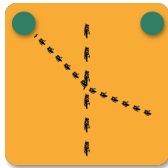
The image describes a rectangular body with two different heat productions. The heat production in area 1 is larger than in area 2.

1



The heat production in area 1 is larger than in area 2, therefore the heat flows from area 1 to both area 2 and to the left side, so there must be a Temperature maximum in area 1. And because the thermal resistance to the left side is smaller than to the right side so the temperature gradient to the left is steeper than to the right.

2



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

3



Due to the constantly increasing heat flux (heat source), the temperature gradient increases constantly with from left to right.