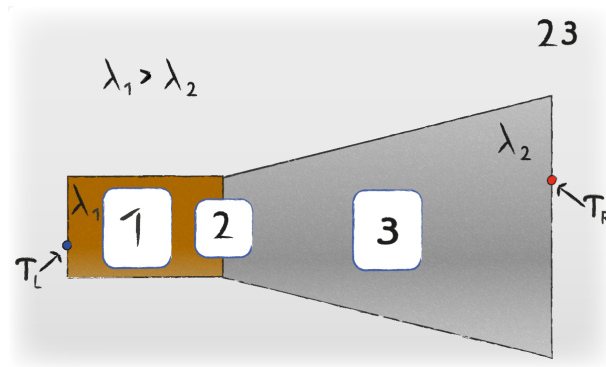


Heat Conduction: Task 23



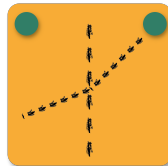
The image describes a rectangular body connected to a body with area increasing linearly from left to right and with lower thermal conductivity. The maximum temperature is on the right side.

1



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

2



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

3



The area decreases from right to left so the temperature gradient increases.