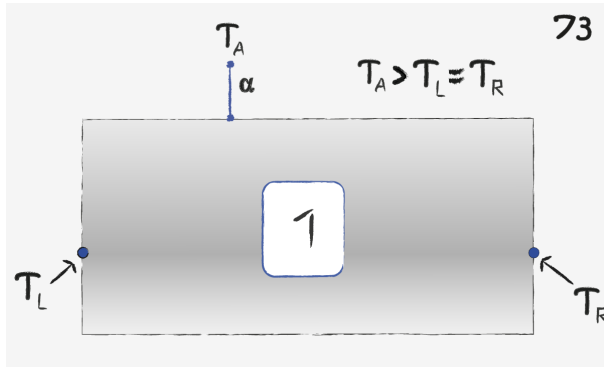




Heat Conduction: Task 73



The image describes a rectangular body with temperatures T_L and T_R given at the left and right boundary. Remaining surfaces are specified as convective boundaries with given temperature T_A .

1



Since temperatures at the left and right are equal and lower than the ambient temperature, heat is conducted from the body's center to its edges. Convective heating indicates an increasing heat flux towards the boundaries, yielding an increased slope of the temperature profile. The problem is completely symmetrical and so is the temperature profile.