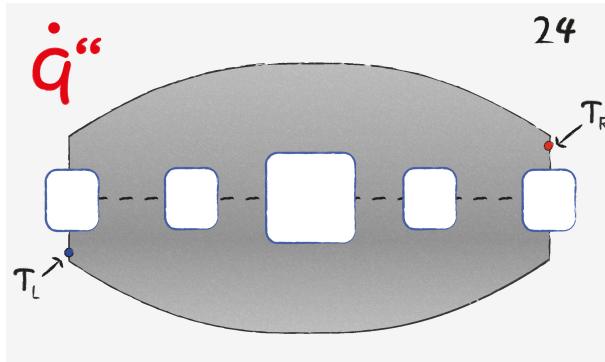


# Axial Heat Flux: Task 24



The image describes a body with parabolic area and maximum temperature on the right side.

- 1 Higher temperature on the body's right side indicates heat flow towards the left, which leads a negative heat flux.
- 2 Increase in cross section yields a deacrease in the absolute value of the specific heat flux. Taken into account the negative sign, specific heat flux increases.
- 3 The middle section has a constant area, such that the specific heat flux is constant too.
- 4 Linear decrease of the area causes the absolute value of specific heat flux to increase. The negative sign yields in fact a heat flux with a negative gradient.
- 5 Since heat is conducted from right to left, the heat flux on the right boundary is still negative.