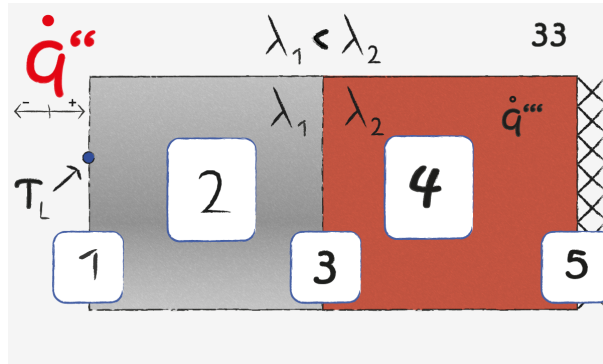


Axial Heat Flux: Task 33



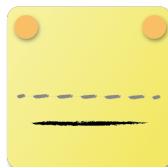
The image describes a rectangular body with a volumetric heat source in section 2 and an adiabatic wall on the right side. Thermal conductivity of section 2 is greater as of section 1.

1



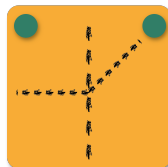
The heat source in section 2 indicates heat flow towards the left, which yields a negative heat flux.

2



Due to the constant cross section area, the specific heat flux is constant too.

3



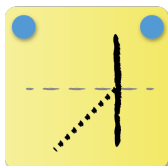
The transition is characterized by a kink from decrease to increase, since it marks the beginning of the heat source.

4



The heat source causes a linear increase of specific heat flux.

5



The adiabatic wall forces the heat flux to vanish at the boundary.