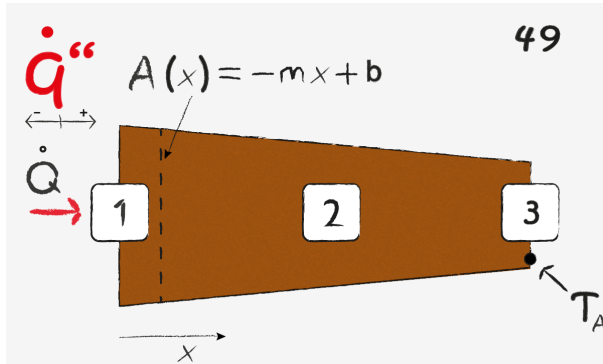# Axial Heat Flux: Task 49



The image describes a solid body, whose cross section area decreases linearly from left to right.

**1**



The imposed heat flux yields a positive profile.

**2**



Specific heat flux develops proportional to $\frac{1}{A(x)}$ and therefore increases. The increase of the gradient can be derived mathematically or can be thought of an increase of the relative change in cross section area.

**3**



The profile continues the described bahavior up to the right boundary.