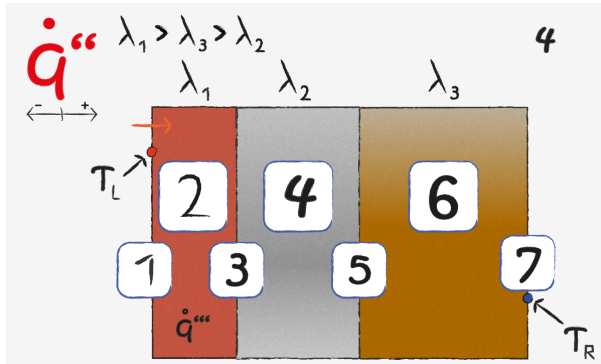




Axial Heat Flux: Task 4



The image describes a multilayered rectangular body containing a volumetric heat source on the left side. The highest temperature is on the left.

1



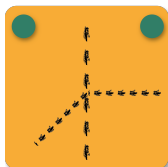
Since the highest temperature is given to be on the left, the specific heat flux is oriented from left to right and therefore positive. The positive gradient is caused by the volumetric heat source.

2



The volumetric heat source causes the specific heat flux to increase linearly.

3



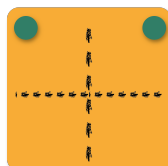
The transition is characterized by a kink from increase to constant, since it marks the end of the heat source.

4



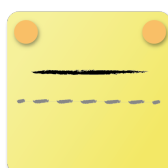
From here on neither heat sources and sinks nor changes in cross-section area cause the specific heat flux to change.

5



Therefore it remains constant all the way to the right boundary.

6



7

