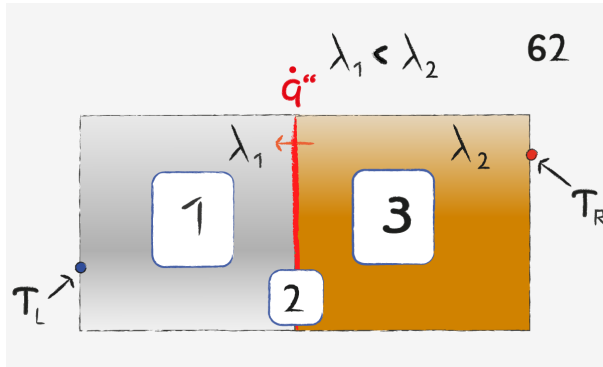


Heat Conduction: Task 62



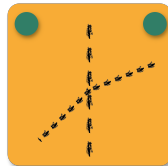
The image describes a body consisting of two sections with a sheet heat source at the transition. Thermal conductivity is greater within the right section and heat flux at the transition is oriented towards the left.

1



Due to constant cross section area, thermal conductivity and heat flux within the section, temperature gradient is constant as well. As heat flux is oriented towards the left, temperature is increasing towards the right.

2



There is a kink in temperature profile at the transition. Increased thermal conductivity and decreased heat flux contribute to a decreased temperature gradient within the right section compared to the left.

3



For the same reasons as in the left section temperature gradient is positive and constant.