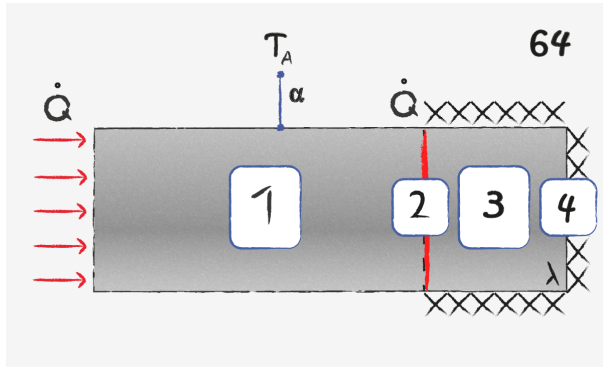


Heat Conduction: Task 64



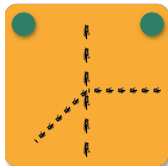
The image describes a body consisting of two sections with a sheet shaped heat source at the transition. There is an imposed heat flux at the left boundary and convective surfaces. The right section is isolated and therefore all it's surfaces are adiabatic.

1



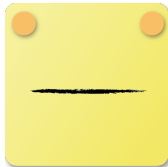
Heat fluxes at the right and left boundary are equal in opposing directions. Therefore the section yields a symmetric temperature profile with a minimum at it's center caused by convective heat loss.

2



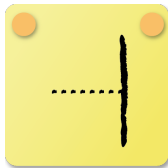
As the right section is entirely isolated and hence adiabatic, no heat flux is present there at all. Consequently the resulting temperature profile is constant

3



all the way

4



towards the right boundary.