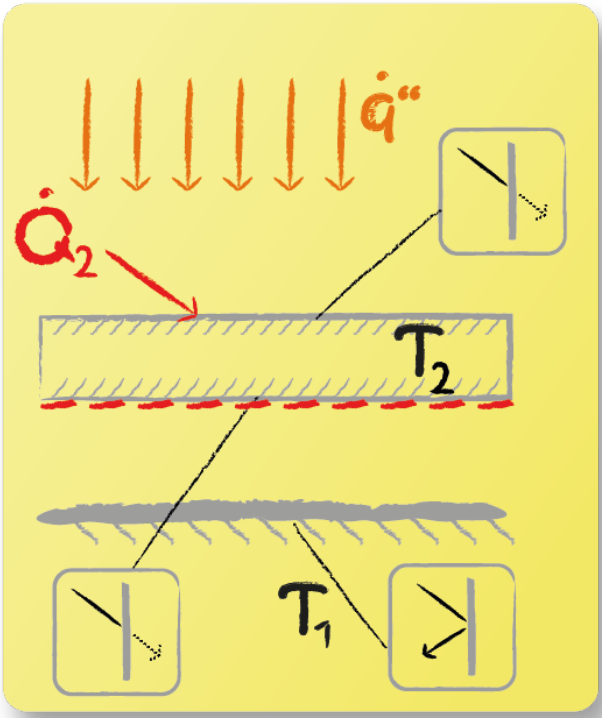
Surface Brightness: Task 33



The image shows two grey bodies. Body 2s surfaces are both transmitting radiation, still the coefficients of bottom and top might differ in values. At the top of body 2 there is radiation $\dot{Q}_2$ as well as specific radiation $\dot{q}''$ arriving. Bottom and top surfaces are indicated by indices b and t.

1 $\dot{Q}_{2\mathrm{b}} = \sigma \cdot \epsilon_{2\mathrm{b}} \cdot A_2 \cdot T_2^4 + \tau_{2\mathrm{t}} \cdot (\dot{q}'' \cdot A_2 + \dot{Q}_2)$

2 The surface brightness of body 2's bottom is composed of its emission and transmission of the specific radiation $\dot{q}''$ and Radiation $\dot{Q}_2$.