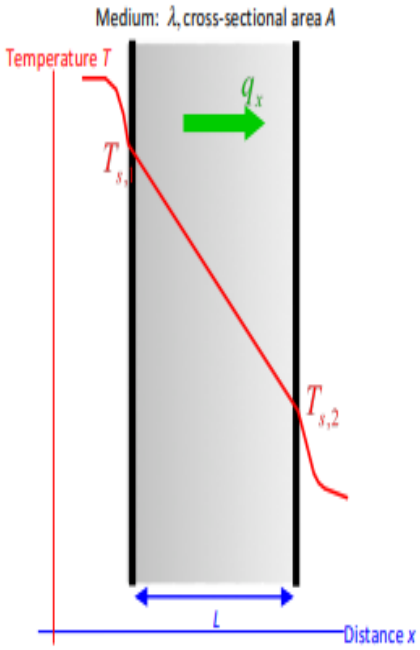
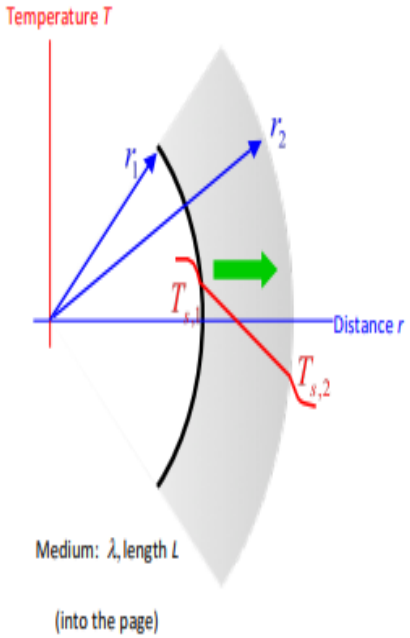
Recall from circuit theory that resistance R_{elec} across an element is defined as the ratio of electric potential difference ΔV across that element, to electric current I traveling through that element, according to Ohm's law,

$$R_{elec} = \frac{V}{I} \tag{3.1}$$

Within the context of heat transfer, the respective analogues of electric potential and current are temperature difference ΔT and heat rate q, respectively. Thus we can establish "thermal circuits" if we similarly establish thermal resistances R according to

$$R = \frac{\Delta T}{q} \tag{3.2}$$





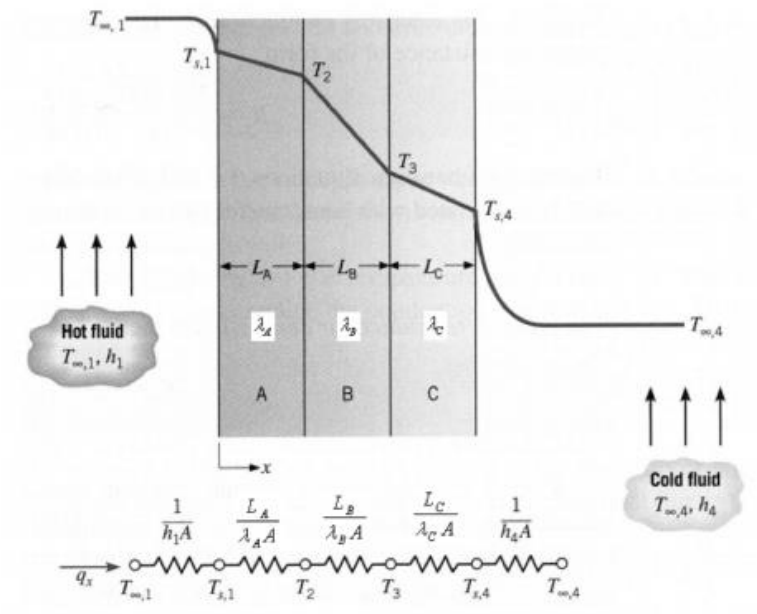


Figure 3.2: Layered planar wall.

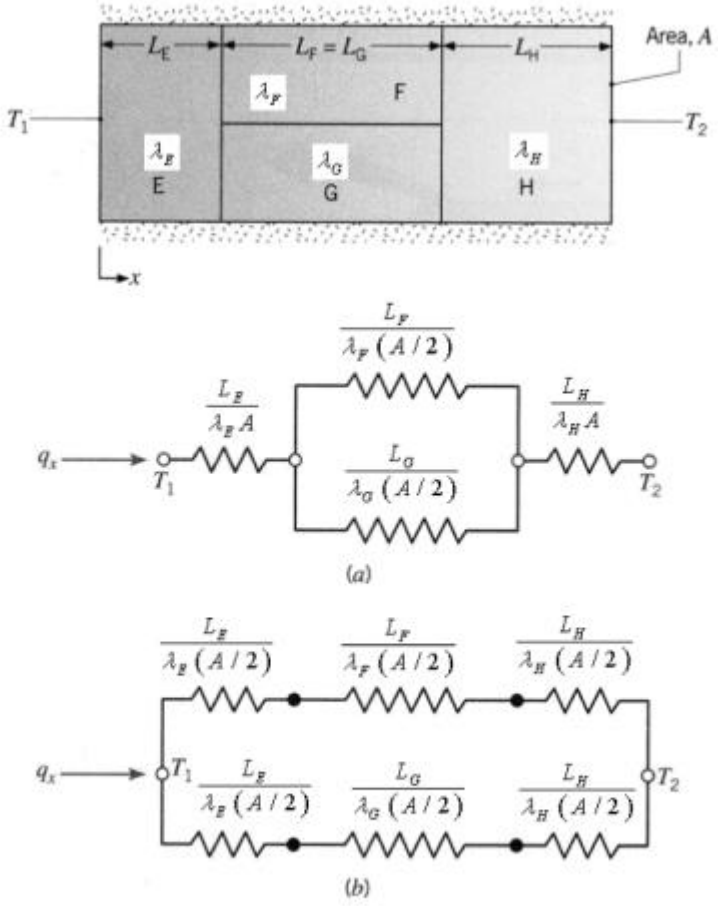


Figure 3.3: Parallel conduction network.

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Other web sources