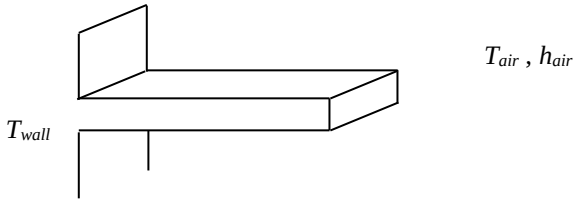
## Example

A straight aluminum fin ($k$ = 200 W/m-K) is 3.00 mm thick and 7.5 cm long. It protrudes from a wall whose temperature is maintained at 300°C. The ambient air temperature is $T_{air}$ = 50°C with $h_{air}$ = 10 W/m$^2$-K. Calculate the heat loss from the fin per unit depth assuming

(a) an infinitely long fin, and
(b) an insulated tip with a corrected fin length.



## Example

(c) Repeat part b) using the fin efficiency concept.