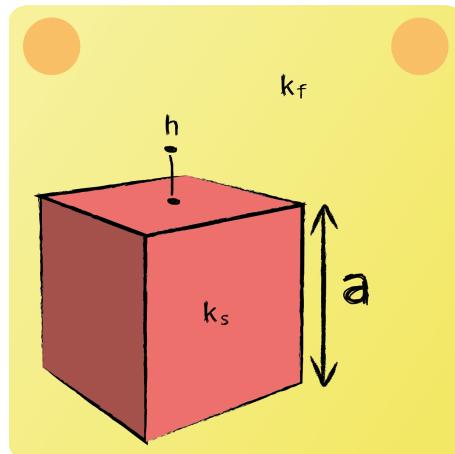


Lecture 06 - Biot Number 04

Give an expression for the Biot number Bi, for a cube subjected to convection.



The characteristic length of a cube:

$$L_c = \frac{V}{A_s} = \frac{a^3}{6a^2} = \frac{a}{6}$$

Biot number:

$$Bi = \frac{hL_c}{k_f} = \frac{ha}{6k_f}$$