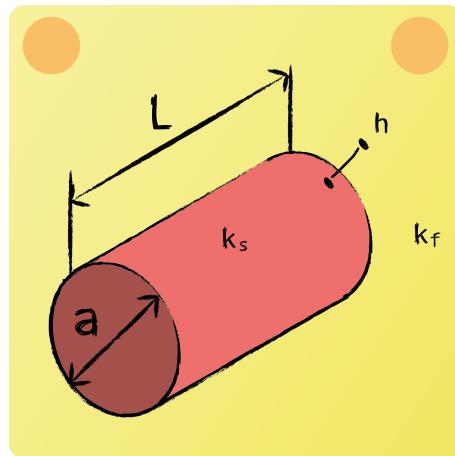


Lecture 06 - Biot Number 02

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



The characteristic length of a long cylinder:

$$L_c = \frac{V}{A_s} = \frac{\pi a^2 L}{2\pi a L} = \frac{a}{2}$$

Biot number:

$$Bi = \frac{hL_c}{k_f} = \frac{ha}{2k_f}$$