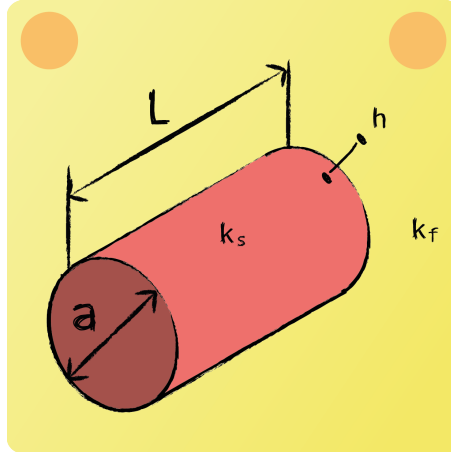


## Lecture 06 - Biot Number 02

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:

$$\text{Bi} = \frac{h L_c}{k_s} = \frac{h a}{2 k_s}$$