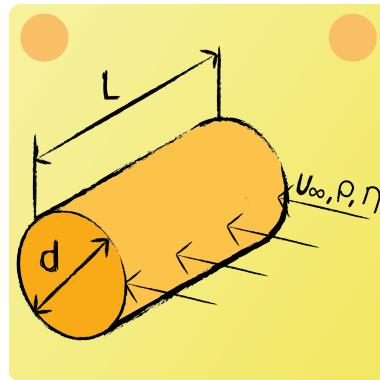


Lecture 6 Question 2.1

Give an expression for the Reynolds number Re , for transverse flow around a cylinder.



The characteristic length in this case is the diameter $d = \frac{1}{4}L$ of the cylinder, thus:

$$\text{Re}_d = \frac{u_\infty \cdot \rho \cdot d}{\eta} = \frac{u_\infty \cdot \rho \cdot L}{4 \cdot \eta}$$