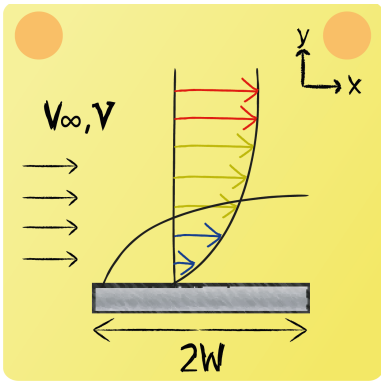
Lecture 2 Question 6

Give an expression for the Reynolds number $\mathrm{Re_L}$ for the given situation in the figure based on known parameters.



The general expression for the Reynolds number is $\mathrm{Re_L} = \frac{\rho u_\infty L}{\eta}$, where the characteristic length for the given case is $L = 2W$ and $\nu = \frac{\eta}{\rho}$.
Thus:

$$\mathrm{Re_L} = \frac{u_\infty 2W}{\nu}$$