Lecture 5 - Question 1

The definition of the Reynolds number is: $Re = \frac{\rho u_\infty L}{\nu}$. Derive the dimension of the Reynolds number.

$$Re = \frac{\rho u_\infty L}{\nu} = \frac{\frac{kg}{m^3} \cdot \frac{m}{s} \cdot \frac{m}{1}}{\frac{kg}{ms}} = \frac{\frac{kg}{ms}}{\frac{kg}{ms}} = [-]$$