\[ L = q_\infty S \ c_\ell \]

Hence,

\[ c_\ell = \frac{L}{q_\infty S} \]

The wing area \( S = (2)(0.3) = 0.6 \text{ m}^2 \)

Hence,

\[ c_\ell = \frac{200}{(1024)(0.6)} = 0.33 \]

From Appendix D, the angle of attack which corresponds to this lift coefficient is

\[ \alpha = 2^\circ \]