

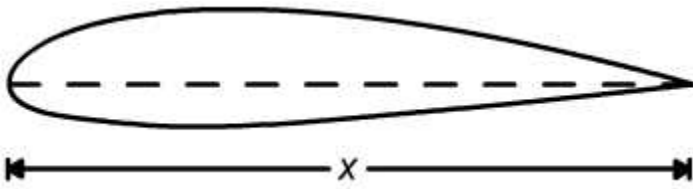
# FLUENT - Flow over an Airfoil- Problem Specification

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## Problem Specification

1. Create Geometry in GAMBIT
  2. Mesh Geometry in GAMBIT
  3. Specify Boundary Types in GAMBIT
  4. Set Up Problem in FLUENT
  5. Solve!
  6. Analyze Results
  7. Refine Mesh
- [Problem 1](#)  
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## Problem Specification



Consider air flowing over NACA 4412 airfoil. The freestream velocity is 50 m/s and the angle of attack is  $2^\circ$ . Assume standard sea-level values for the freestream properties:

Pressure = 101,325 Pa

Density = 1.2250 kg/m<sup>3</sup>

Temperature = 288.16 K

Kinematic viscosity  $\nu = 1.4607 \times 10^{-5}$  m<sup>2</sup>/s

We will determine the lift and drag coefficients under these conditions using FLUENT.

Go to [Step 1: Create Geometry in GAMBIT](#)

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