MAE560/460 Applied CFD, Fall 2021 Homework 1 Solution
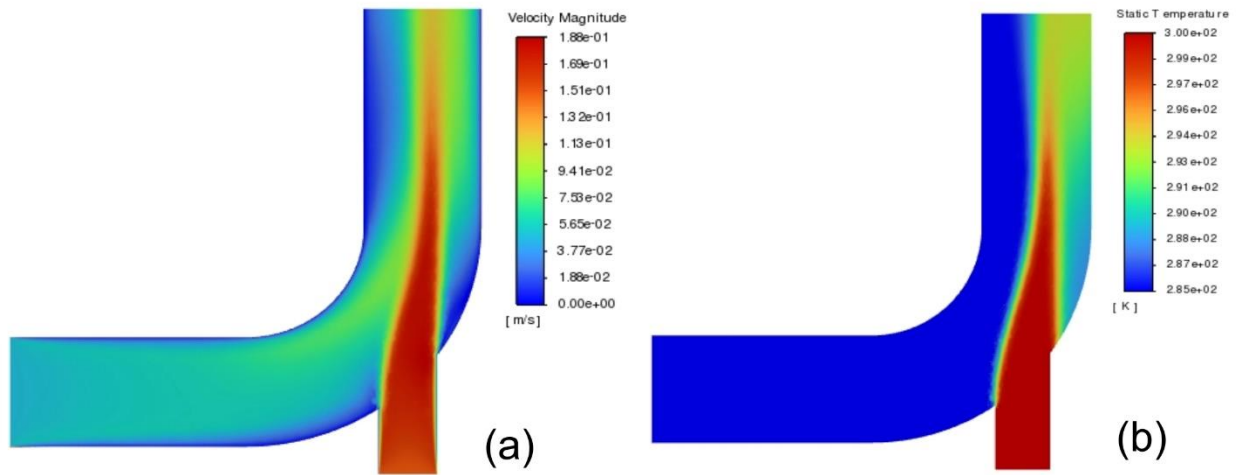
Deliverable 1

Fig. 1 (a) Contour plot of velocity magnitude. (b) Contour plot of temperature.
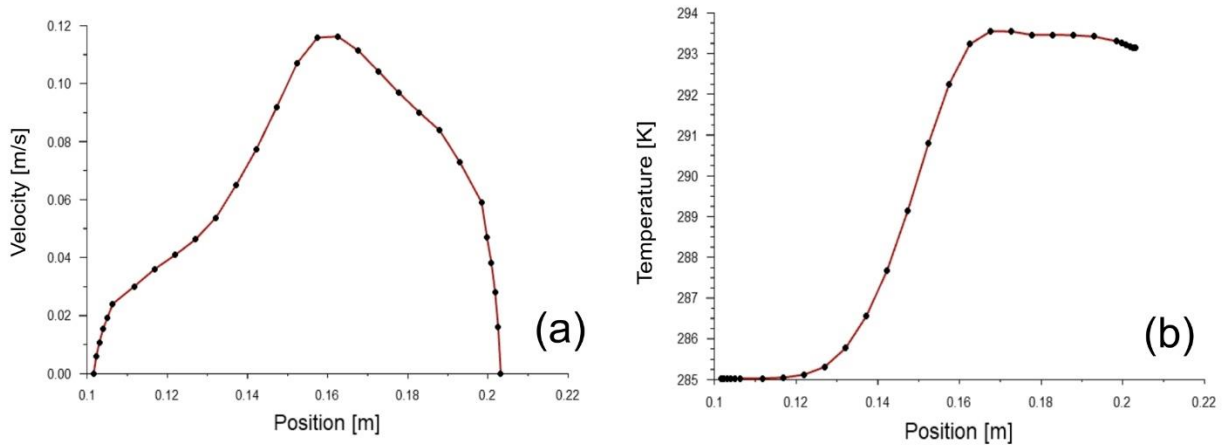
Deliverable 2

Fig. 2 (a) Line plot of velocity. (b) Line plot of temperature.

Deliverable 3

Using half-pipe geometry, the values of H are (in Watts):

Big inlet: 94016
Small inlet: 73866
Outlet: 167845 (going out)