ME EN 2450
Ryan Dalby u08484807
Lab3

Findings

It was found that the friction factor was 0.01870011 and the head loss due to frictional effects was 411.40 (m/s)^2.

The solution from calculate_head_loss does make sense since we are essentially talking about energy loss per weight as fluid goes through a pipe. 411.40 (m/s)^2 makes sense in this case which is essentially 411.40 J/kg of fluid. This is reasonable for a loss since the energy is on the scale of other frictional losses of objects of 1kg of mass. Looking at the plot of the Colebrook equation(that is satisfied when the equation is equal to zero) that varies the frictional factor, we see that the plots of the bisection method in action indicate that the correct zero value was found.