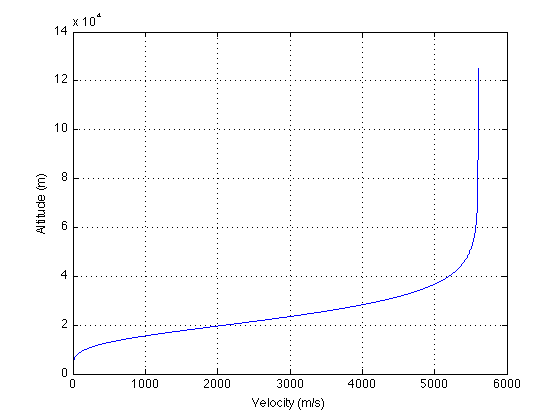
Problem 1:

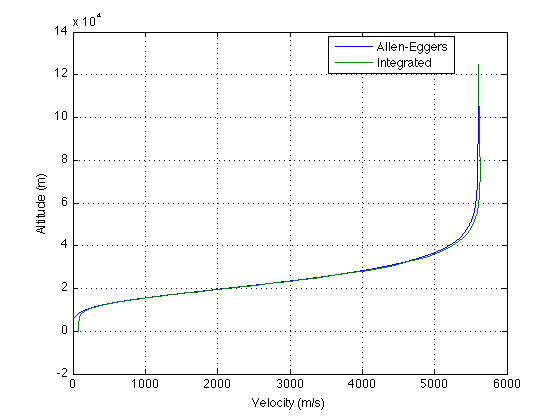
a)

b)

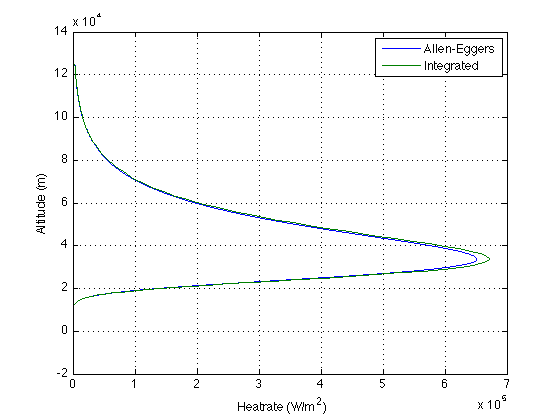
c)

d)

e)

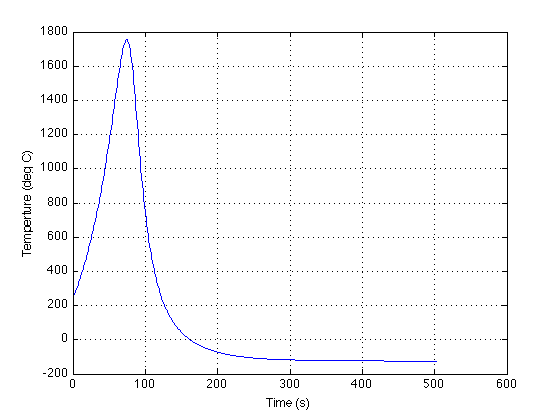


This just shows how close the Allen-Eggers solution is to a “higher quality” solution of integrating over time.

f) 

g)

The analytic peak rate is very close to what is expected from the graph, as seen in the first two answers.

h)

i)

j)

The values are within a reasonable value from 56 and 2339

Extra Credit: I attempted this, but was unable to get the boundary conditions working. I have shown my work in the Matlab script.

Problem 2:

a)

b)

Problem 3:

a)

b)

c)

d)

