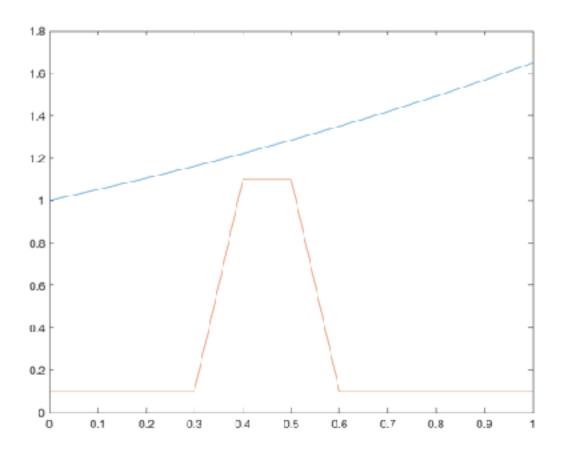
For question 1 I generated the figure seen below.



I used the Hubbard function provided by lecture slides and the builtin exp() function in Matlab.