Determine the price an American put option using finite difference method (*Cryer's algorithm*) with the following data:

$$S(0) = 50; K = 50; T = 1\ ; r = 8\%; \sigma = 30\%.$$

Also determine the early exercise curve. Plot the values of the option against time and stock price. Finally, plot the early exercise curve.

Submission Deadline: 4th September 2022, 11:59 PM