Filling missing data using interpolation

Data file SI-Task1-DataX.txt includes three data pairs that are nodes and function values for the nodes.
Data file SI-Task2-DataX.txt includes two sub-tasks (two different data sets) where interval, number of nodes and interpolated function are indicated.
Data file SI-Task3-DataX.txt includes interval, three different number of nodes (hence three sub-tasks are to do) and interpolated function.

1. Calculate two spline polynomials for the three (i = 0, 1, 2) nodes. If possible, present the result in the figure.

2. Do linear and cubic spline interpolation for the two sets of following data: the interval, number of nodes (i = 0, 1, 2, 3) and the function. Make interpolation plots. Calculate max(|E|),where E is the error for each case. Make error plots.

3. Do interpolation by means of the Lagrange polynomial and the cubic spline for the given function and interval, and different numbers of nodes (n = {4, 6, 11}). Make interpolation plots. Calculate max(|E|) for each case. Make error plots.