1. Given $m+1$ data points $(x_i, f_i), i=1,2,\ldots,m+1$, and the derivative of the unknown curve at the start point and the end point: $f'_1$ and $f'_{m+1}$, how would you construct a cubic spline curve $g(x)$ to interpolate these $m+1$ points? You need to show me the four major steps (with details) and the system of linear equations that has to be solved.

2. Given $m+1$ data points $(x_i, f_i), i=1,2,\ldots,m+1$, how would you construct a cubic spline curve $g(x)$ to interpolate these $m+1$ points? You need to show me the four major steps (with details) and the system of linear equations that has to be solved.