Tutorial - 3

(1) $z_1 = 1.6791$ $\quad z_0 = 0$

$z_2 = -1.5331$ $\quad z_3 = 0$

(2) $z_0 = 0$

$z_1 = -0.4182$

$z_2 = -0.05310$

$z_3 = -0.07610$

$z_4 = 0$

(3) (i) Is a spline (ii) Not a spline

(4) $$S(x) = \begin{cases} \frac{1}{12}x^3 - \frac{1}{4}x^2 - \frac{1}{3}x + \frac{3}{2}, & x \in [1, 2] \\ \frac{-1}{12}x^3 - \frac{3}{4}x^2 - \frac{7}{3}x + \frac{17}{6}, & x \in [2, 3] \\ -\frac{1}{12}x + \frac{7}{12} & x \in [3, 4] \end{cases}$$