

CS-6210: HW 3

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1 Chapter 5

5.10 a)

b)

c)

d)

5.11 a) For $g(x)$ to be a cubic spline, the following basic conditions must be met:

$$\begin{aligned} g_1(x_1) &= y_1 & g_1(x_2) &= y_2 \\ g_2(x_2) &= y_2 & g_2(x_3) &= y_3 \end{aligned}$$

$$\begin{aligned} g_1'(x_2) &= g_2'(x_2) \\ g_1''(x_2) &= g_2''(x_2) \end{aligned}$$

b)

c)

d)

5.15 a)

5.22 a)

5.26 a)

5.27 a)

5.28 a)