Quiz 3 (30-10-2018)

Math 371, Introduction to Numerical Computing

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Question 1. [**3 marks**] State the necessary equations to construct a natural cubic spline that passes through the points $(1, 1), (3, 4)$, and $(6, 3)$.

Question 2. **[2 marks]** Use the data shown in the table below to approximate the second derivative of some twice-differentiable function f at $x = 2.1$ using the centered-differencing formula.

x	1.75	1.80	2.00	2.10	2.22	2.40
$f(x)$	0.004	0.124	0.457	0.557	0.589	0.601