

Final Project Numerical Methods

Malcolm Watt

April 17, 2018

Chapter 7 Exercises

Question 7.1

Given the three data points $(1, 1)$, $(0, 0)$, $(1, 1)$, determine the interpolating polynomial of degree two:

- (a) Using the monomial basis
- (b) Using the Lagrange basis
- (c) Using the Newton basis

Show that the three representations give the same polynomial.

(a) Monomial Basis

7.1, 7.2, 7.5, 7.10, 7.11

Chapter 8 Exercises

8.2, 8.5, 8.6, 8.9, 8.10

Chapter 9 Exercises

9.4, 9.7, 9.8, 9.9, 9.11