At the end of this chapter you should be able to

1. Identify the distinction between interpolation and curve fitting.

2. Identify the problem of roundoff error in linear interpolation with a monomial basis.

3. Manually compute the Lagrange or Newton interpolation through a set of points.

4. Explain the limitation of interpolation polynomials of arbitrary high degree (polynomial wiggle).

5. List the constraints imposed on piecewise cubic functions to produce a cubic spline interpolation.

6. Distinguish between cubic spline and Hermite interpolation, and contrast the work involved in calculating both.

7. Identify the three types of end conditions used in cubic spline interpolation.