

Numerical Analysis

EIGHTH EDITION

Richard L. Burden

Youngstown State University

J. Douglas Faires

Youngstown State University



CHAPTER

8

Approximation Theory



8.1 Discrete Least Squares Approximation

Figure 8.1

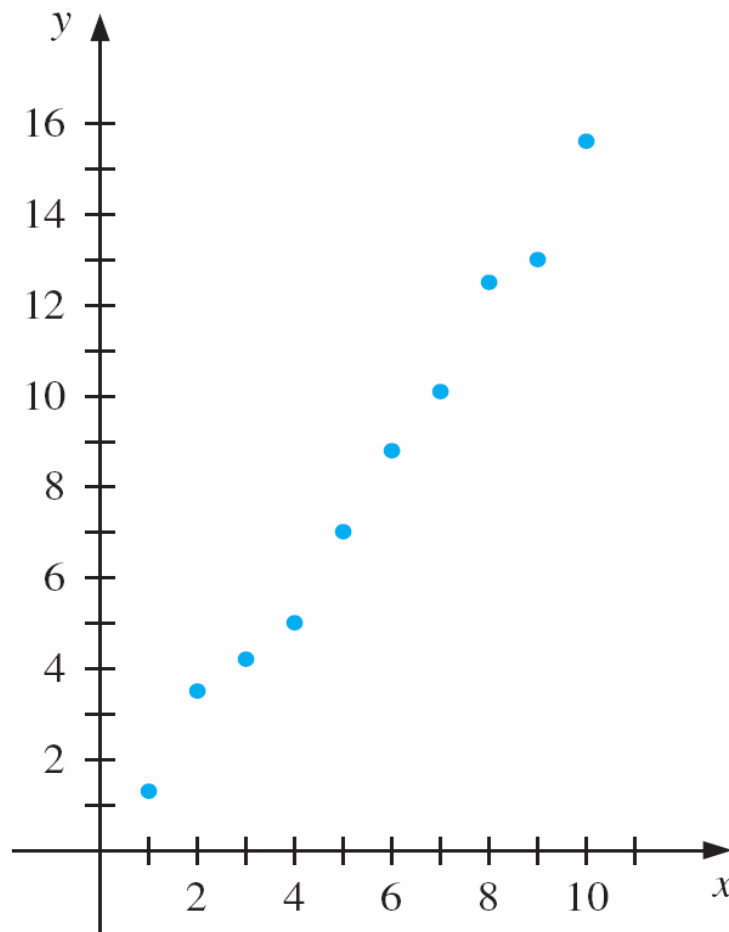


Figure 8.2

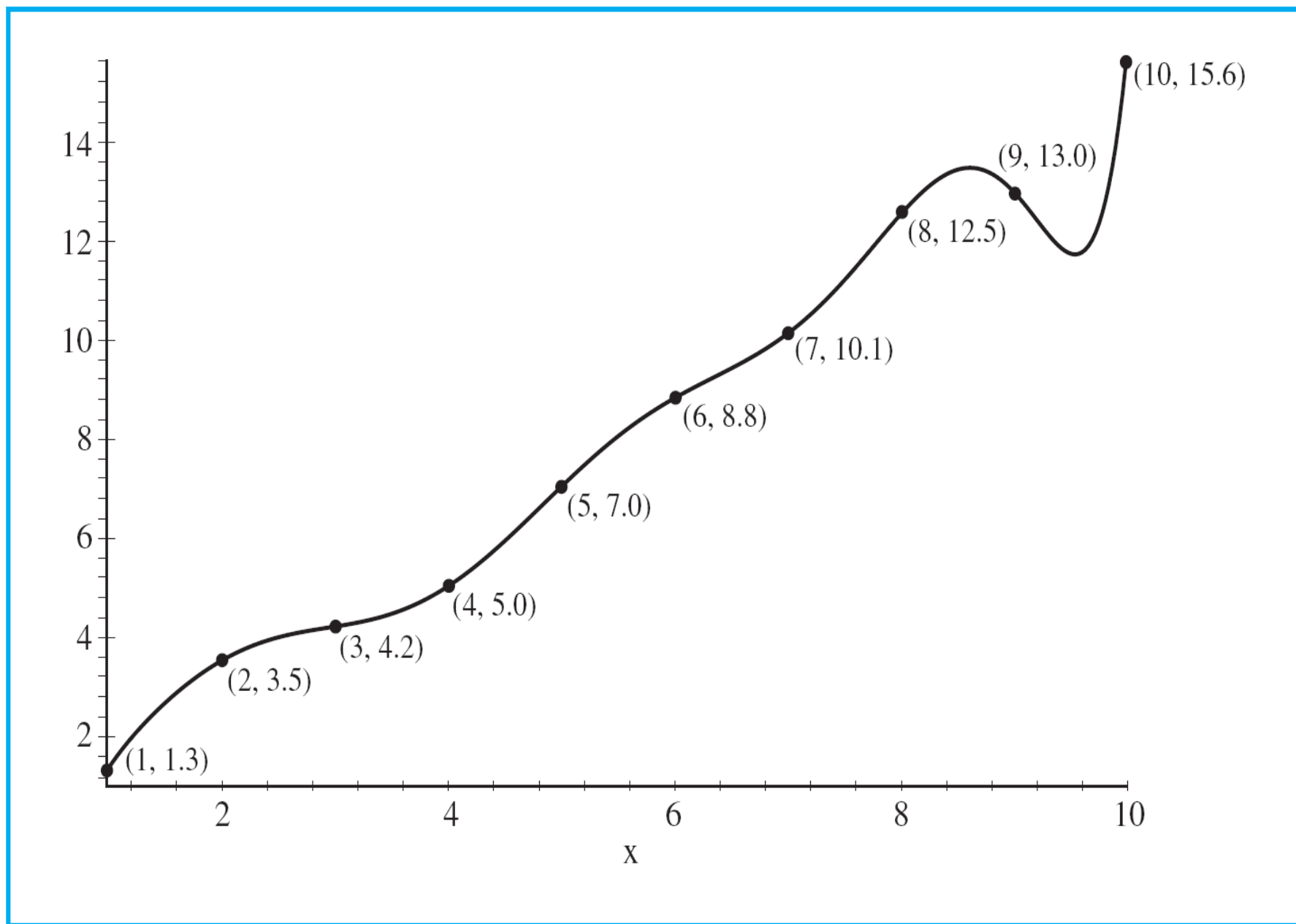


Figure 8.3

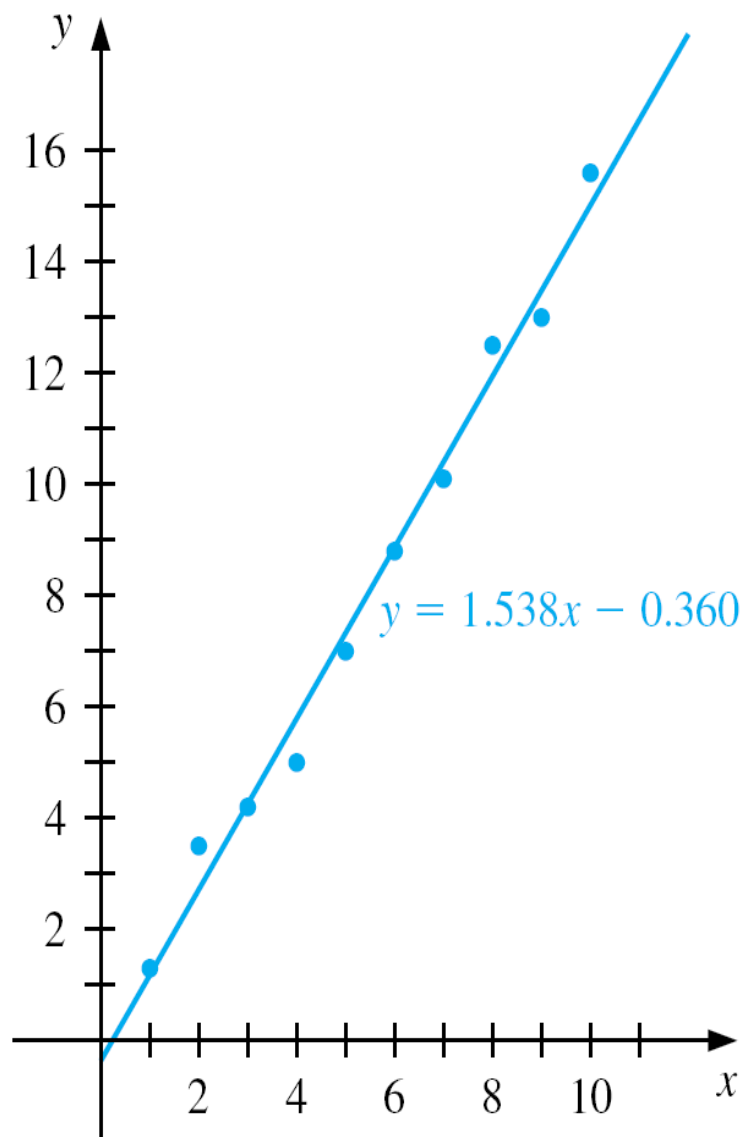


Figure 8.4

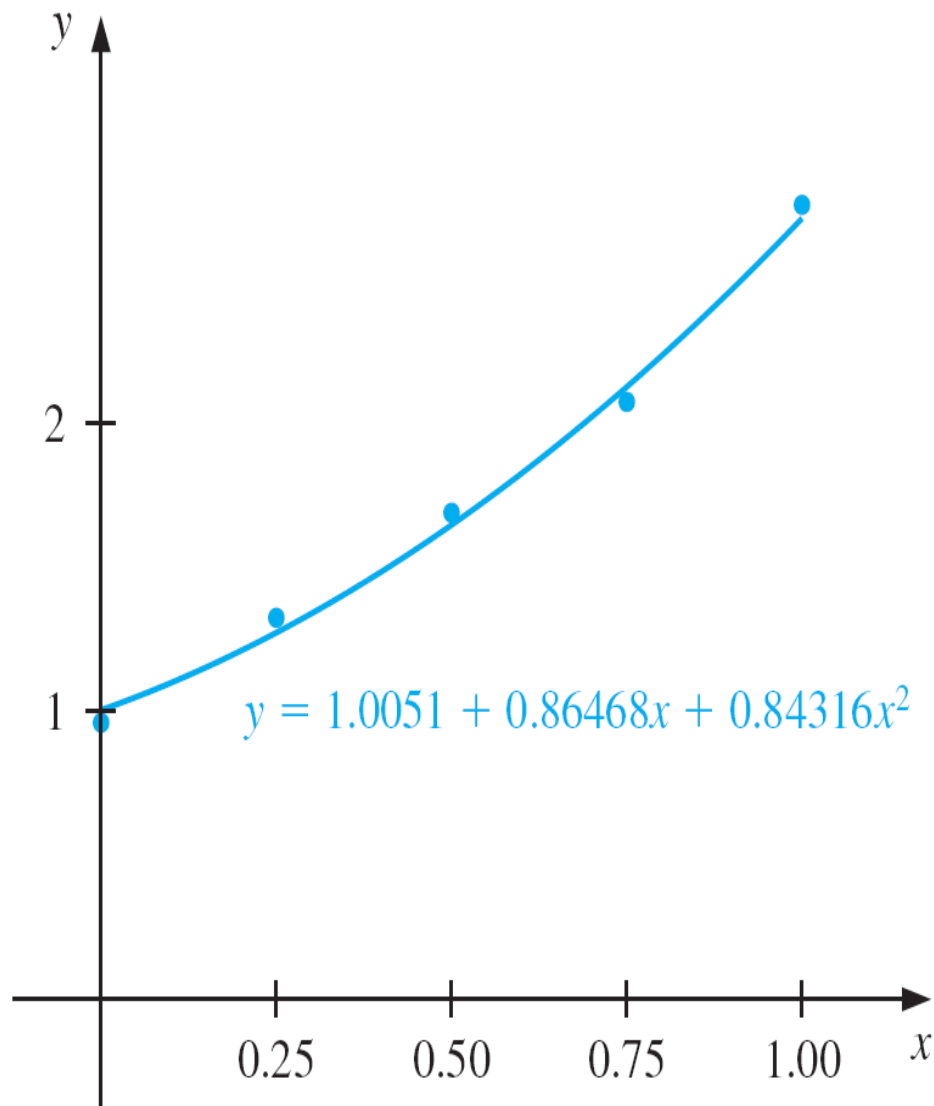
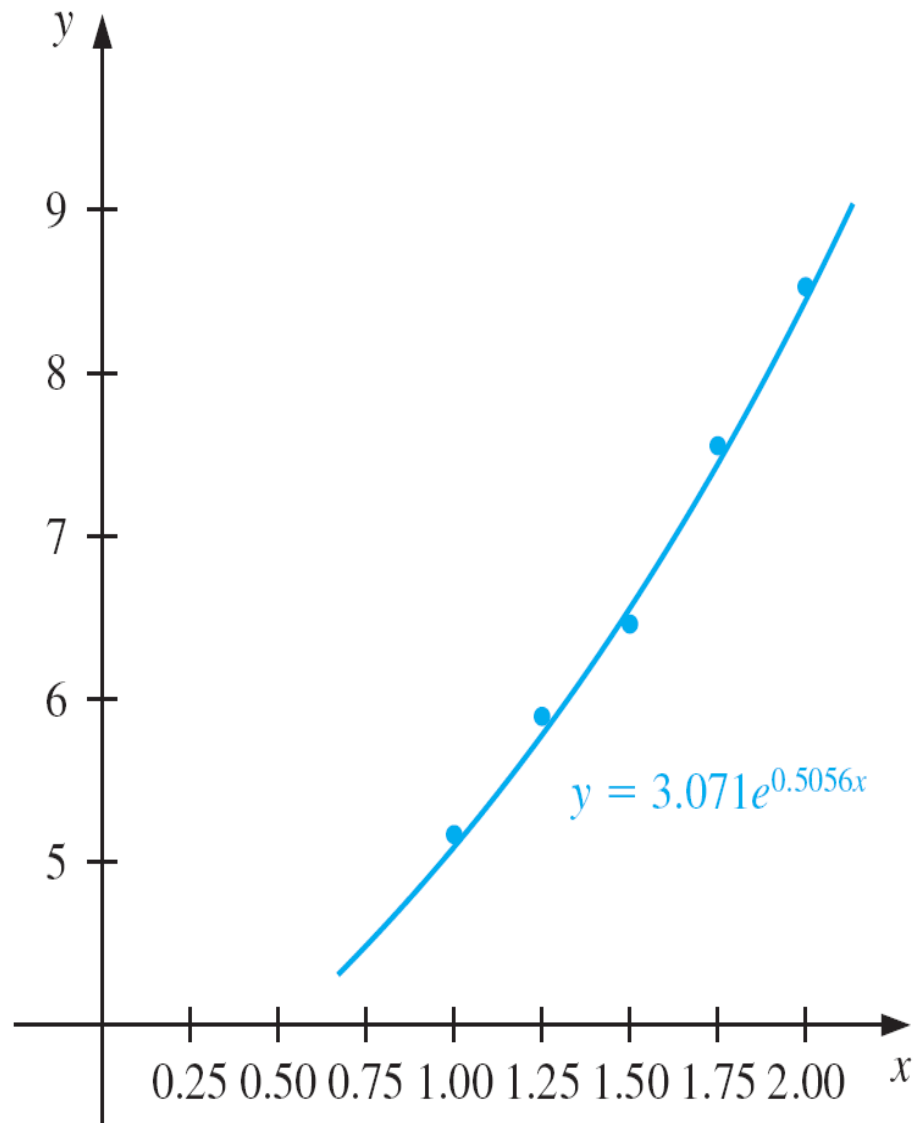


Figure 8.5



8.2 Orthogonal Polynomials and Least Squares Approximation

Figure 8.6

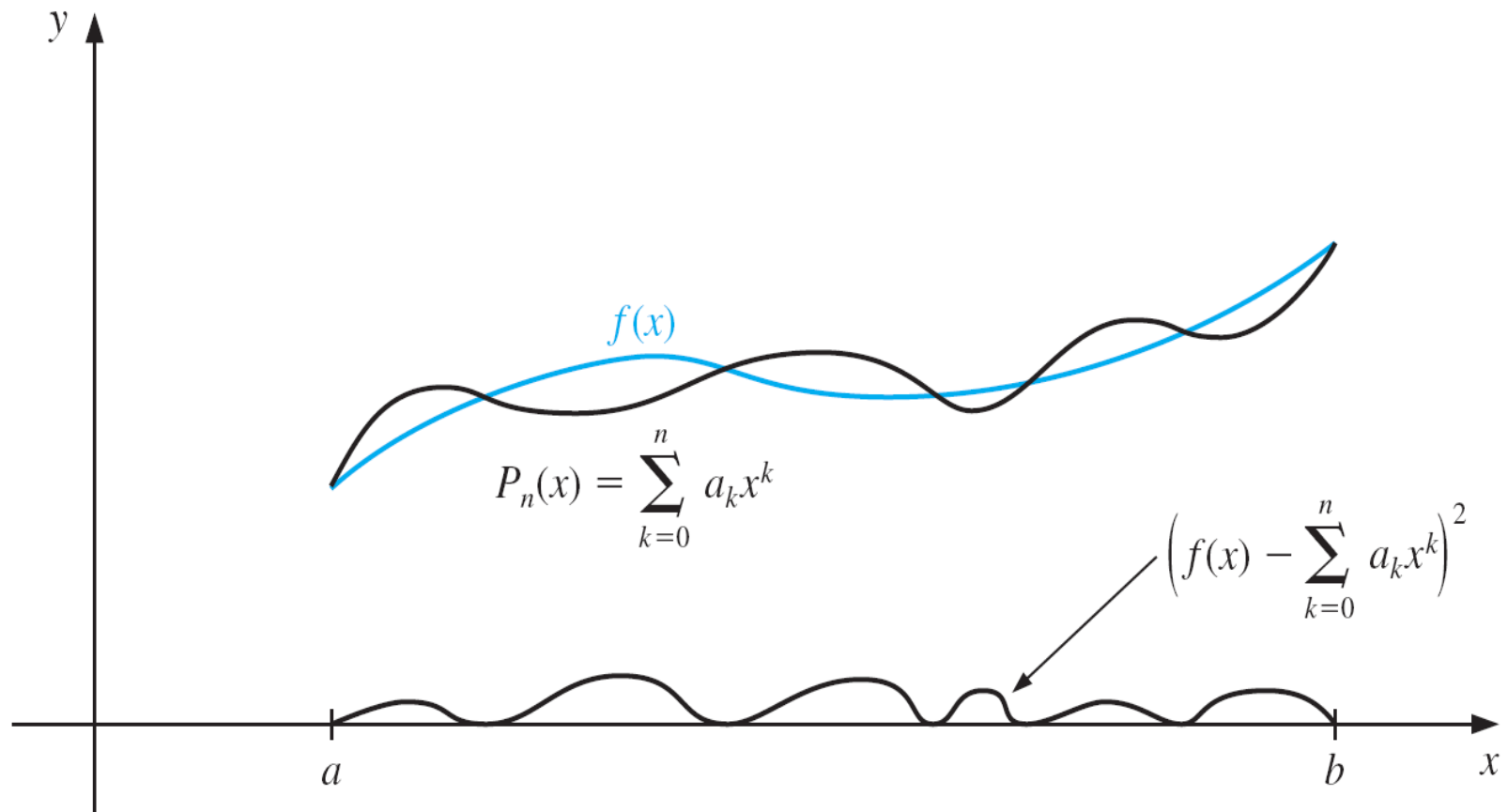


Figure 8.7

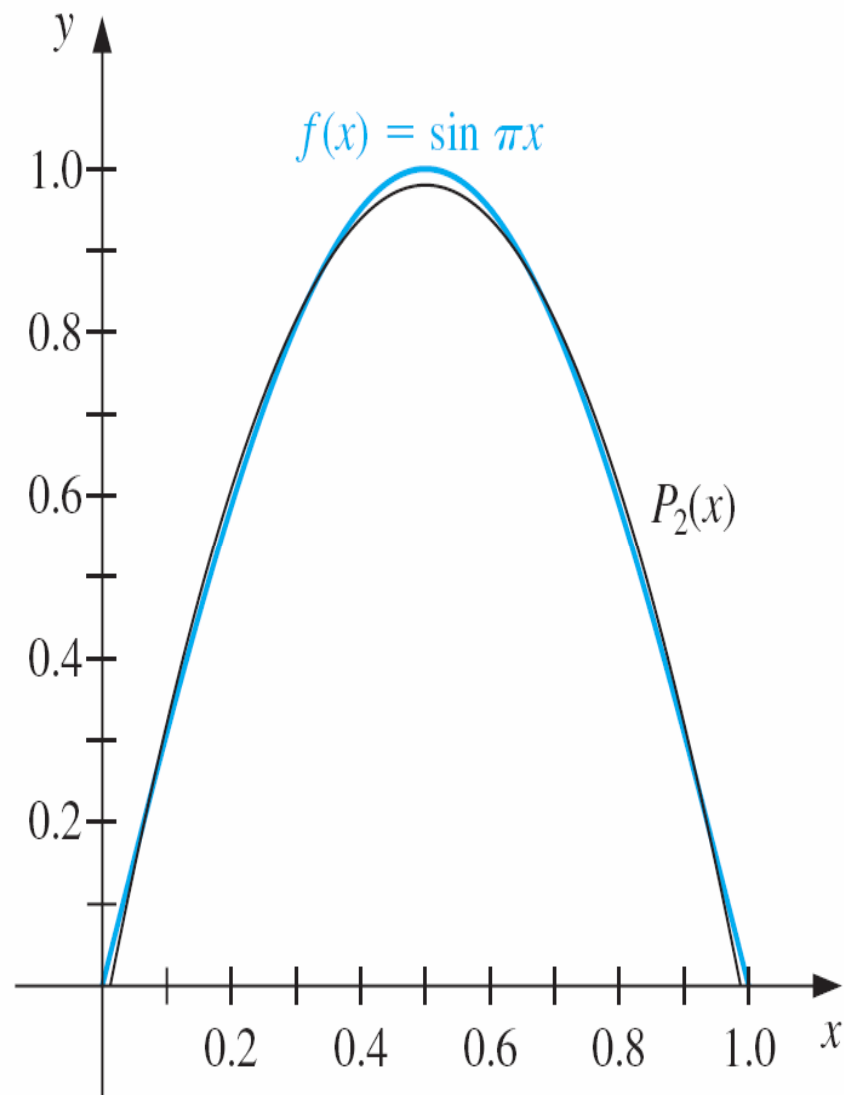


Figure 8.8

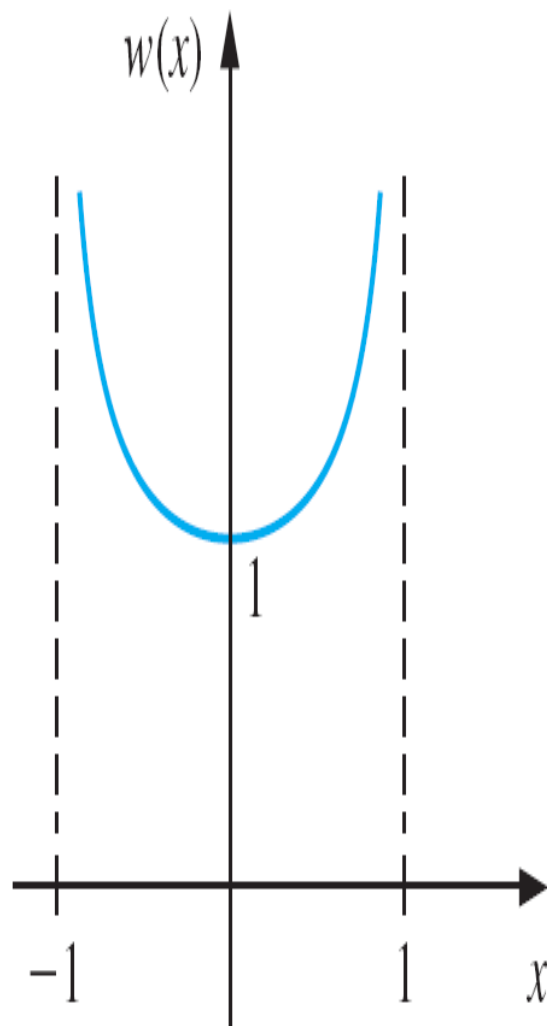
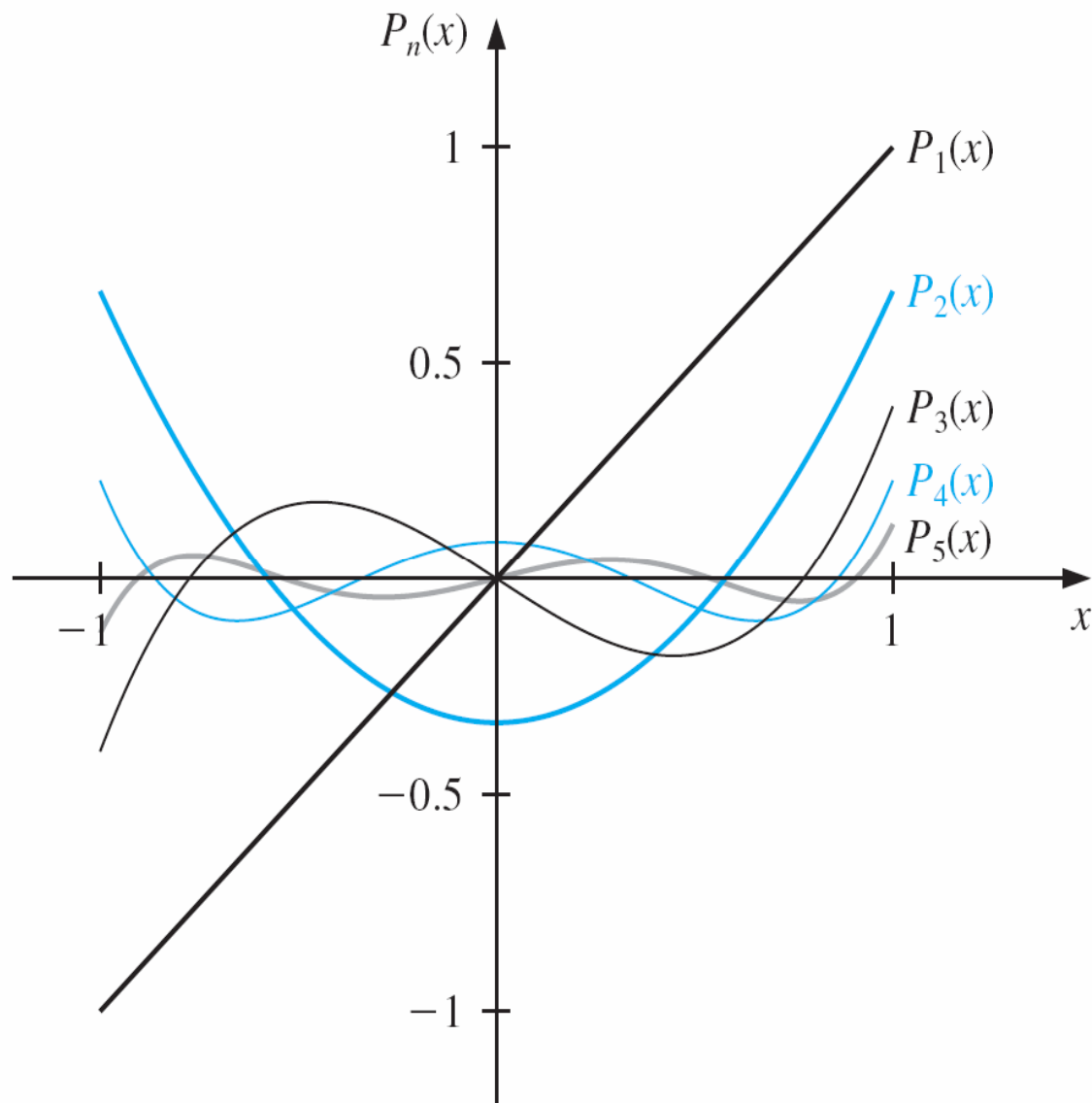


Figure 8.9



8.3 Chebyshev Polynomials and Economization of Power Series

Figure 8.10

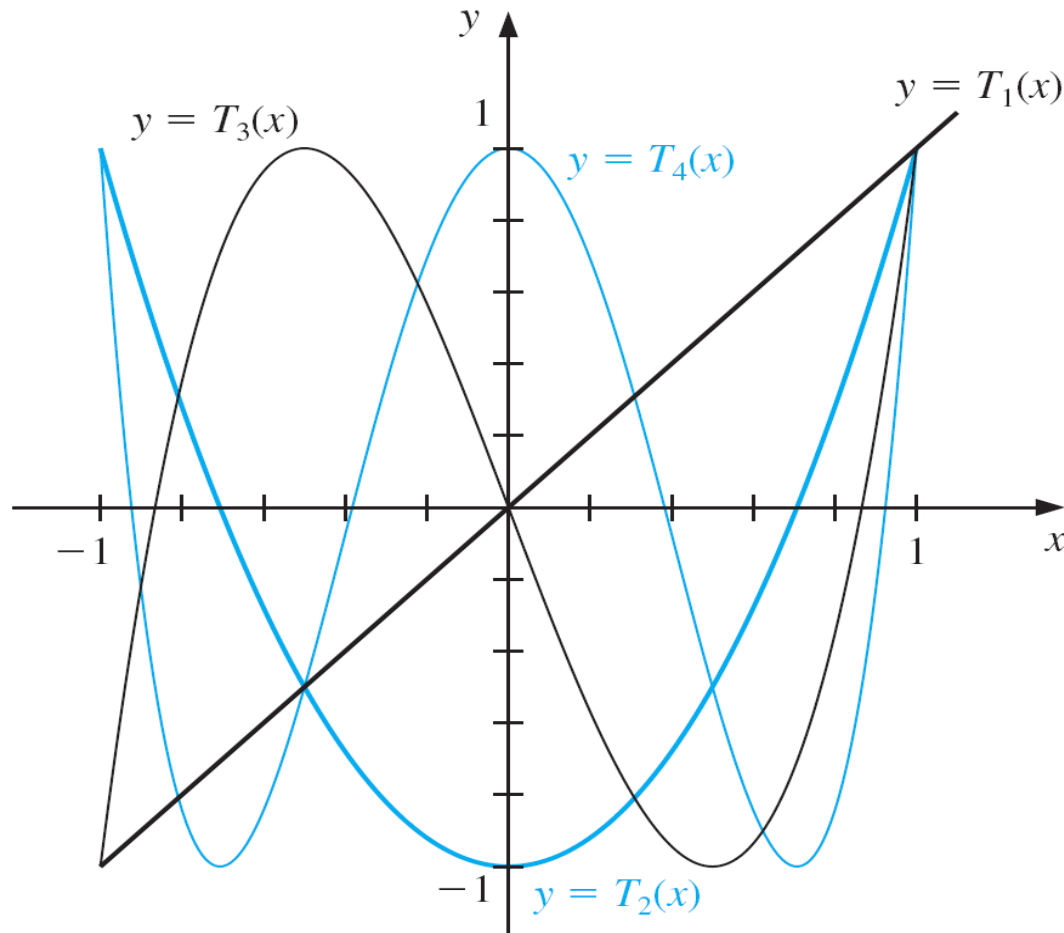


Figure 8.11

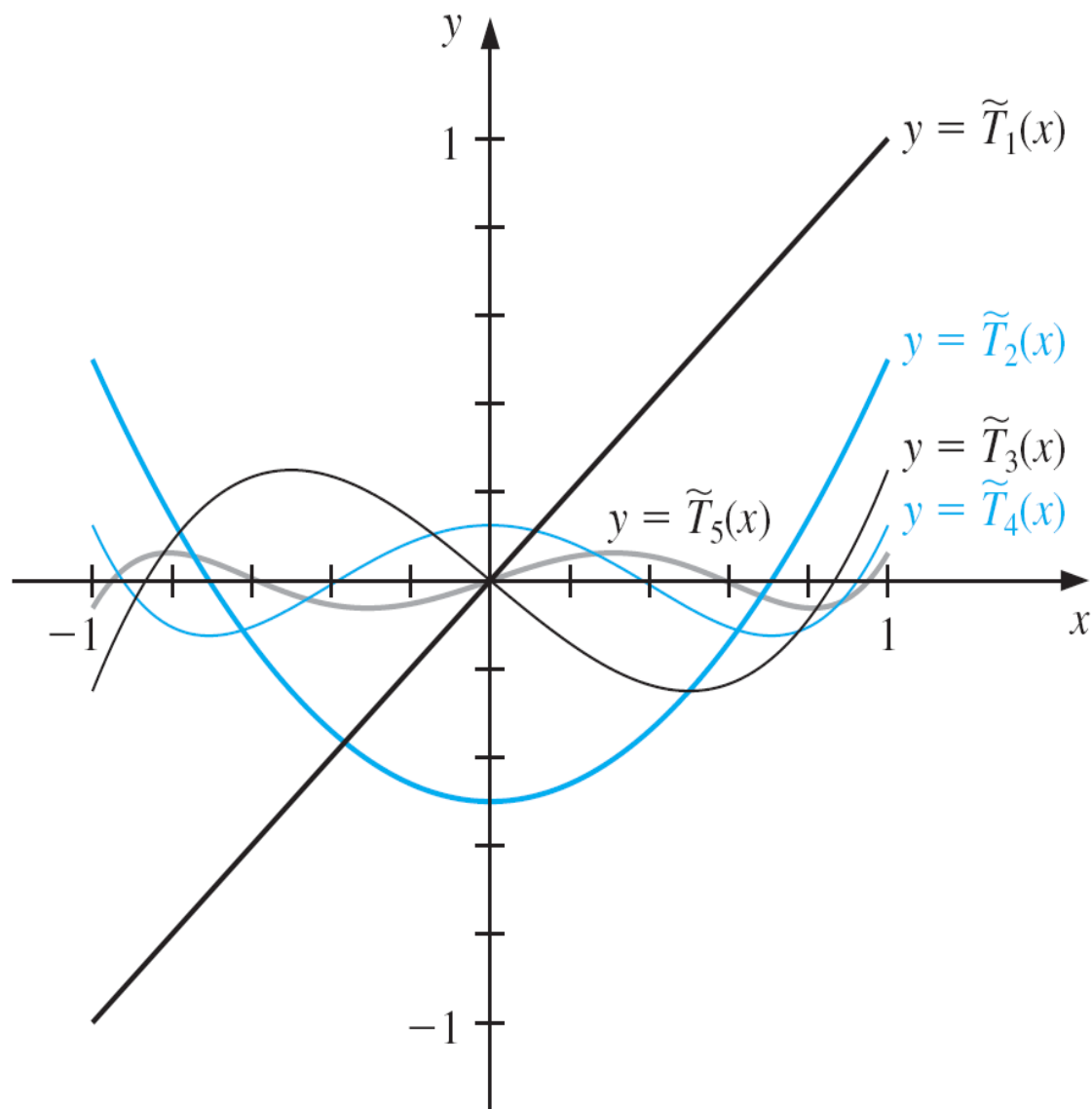


Figure 8.12

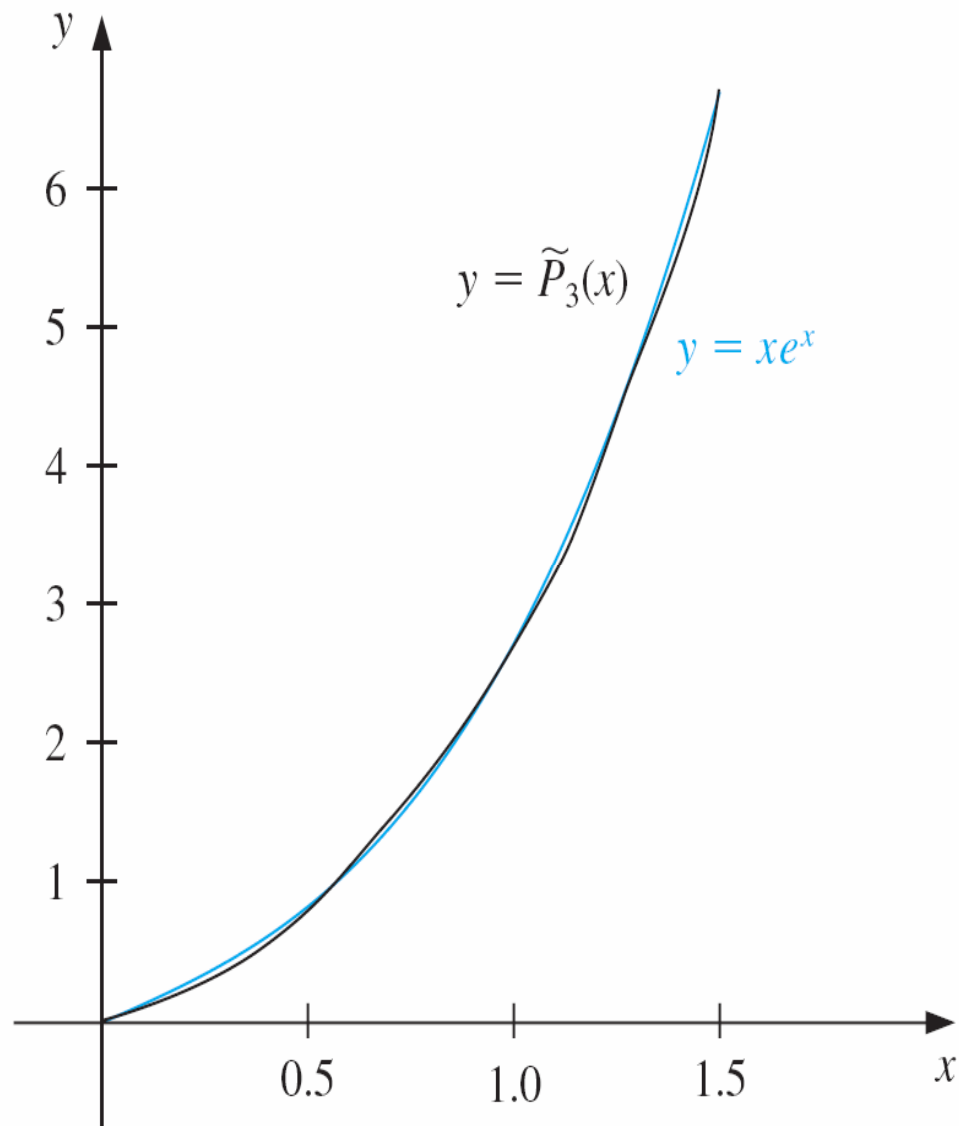


Figure 8.13

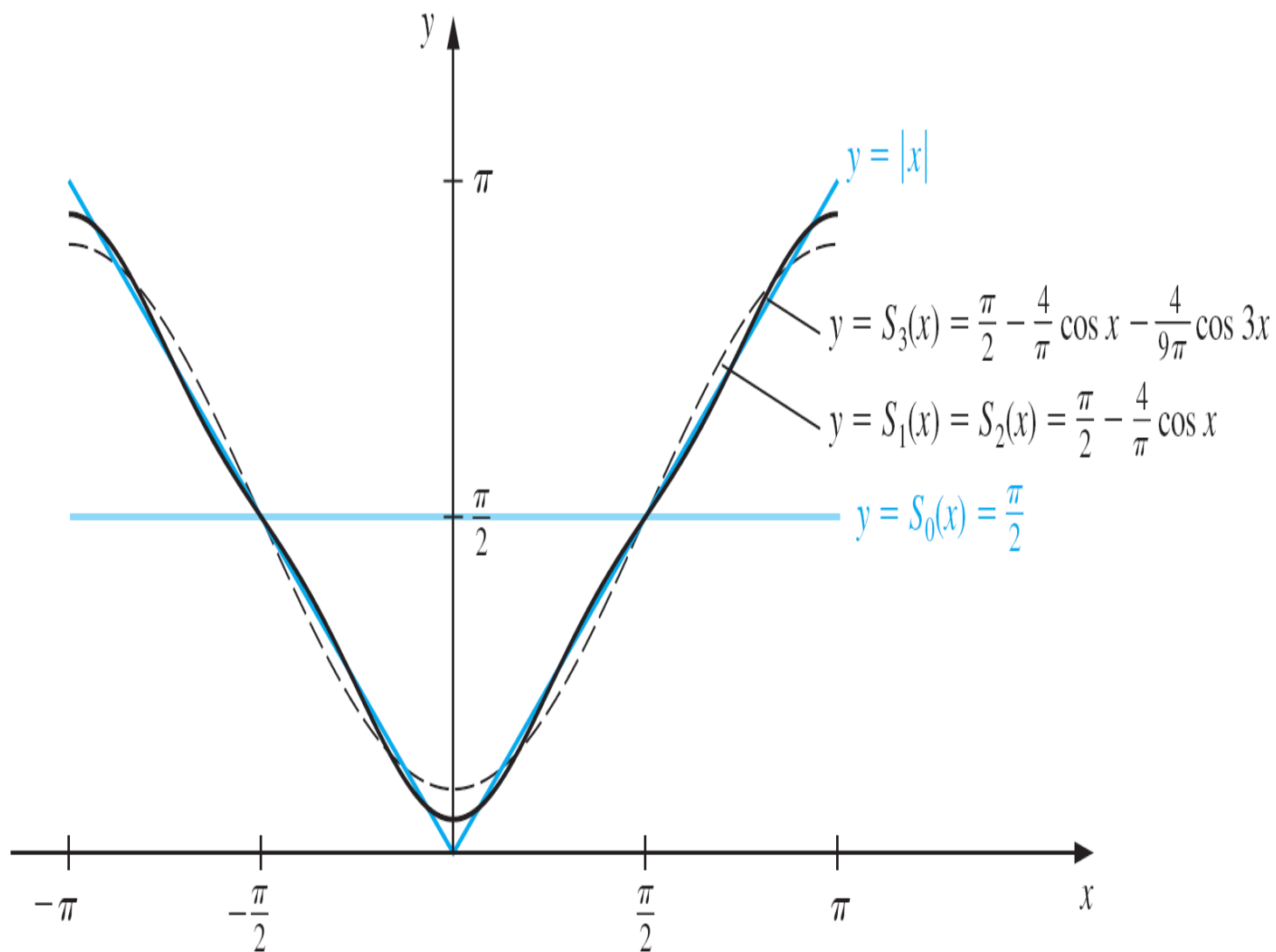


Figure 8.14

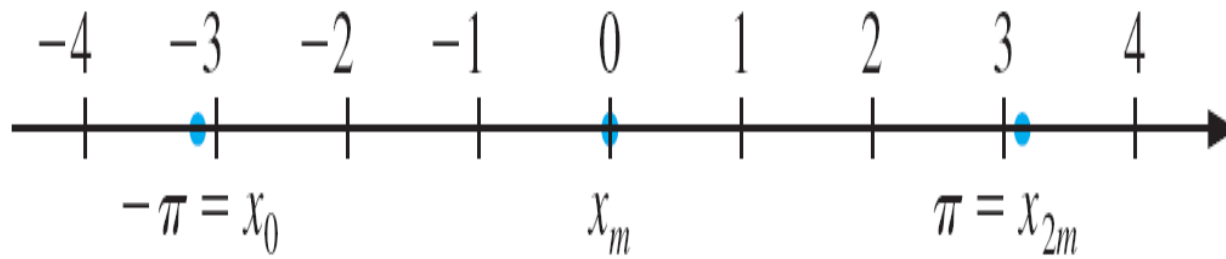


Figure 8.15

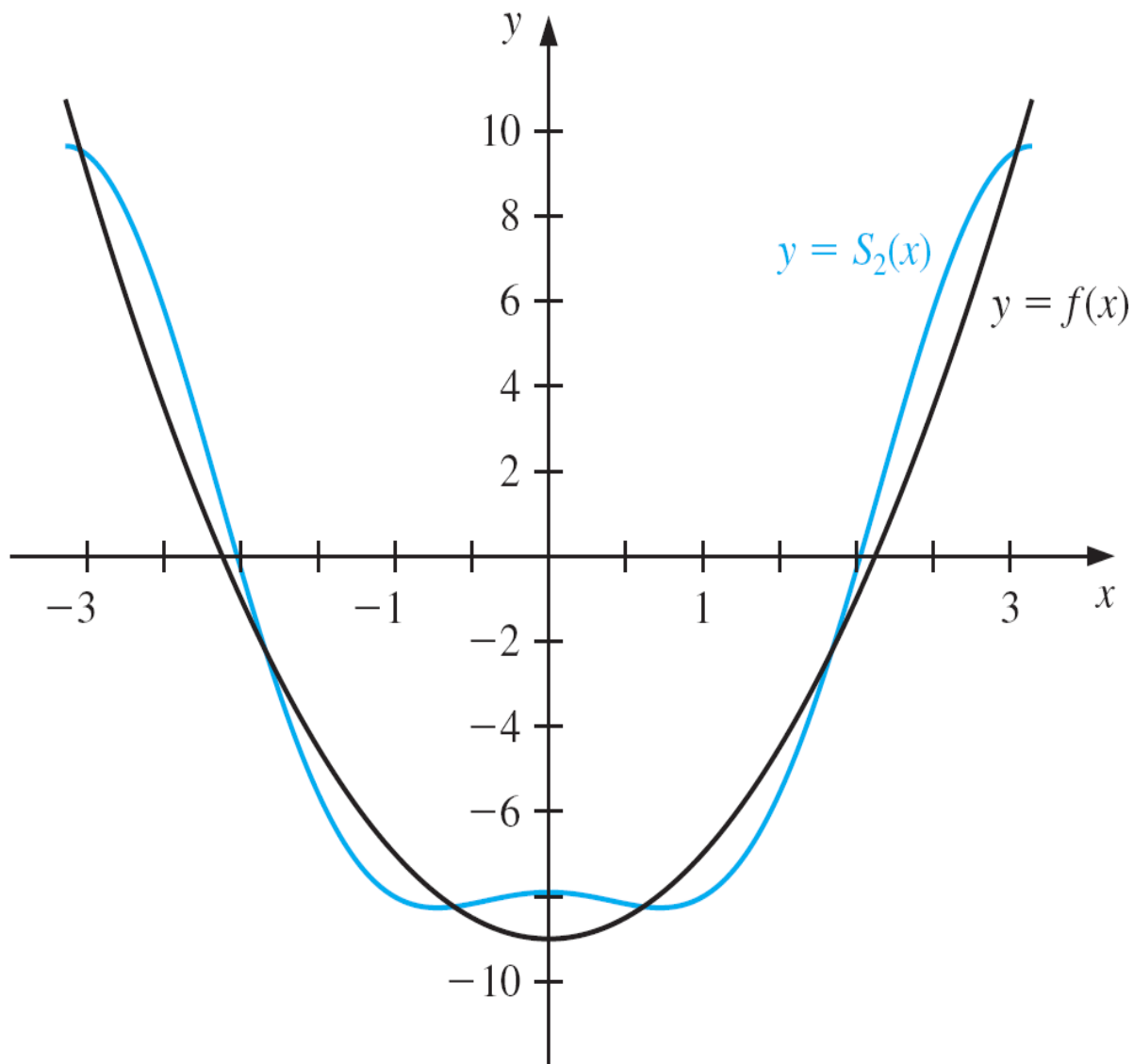


Figure 8.16

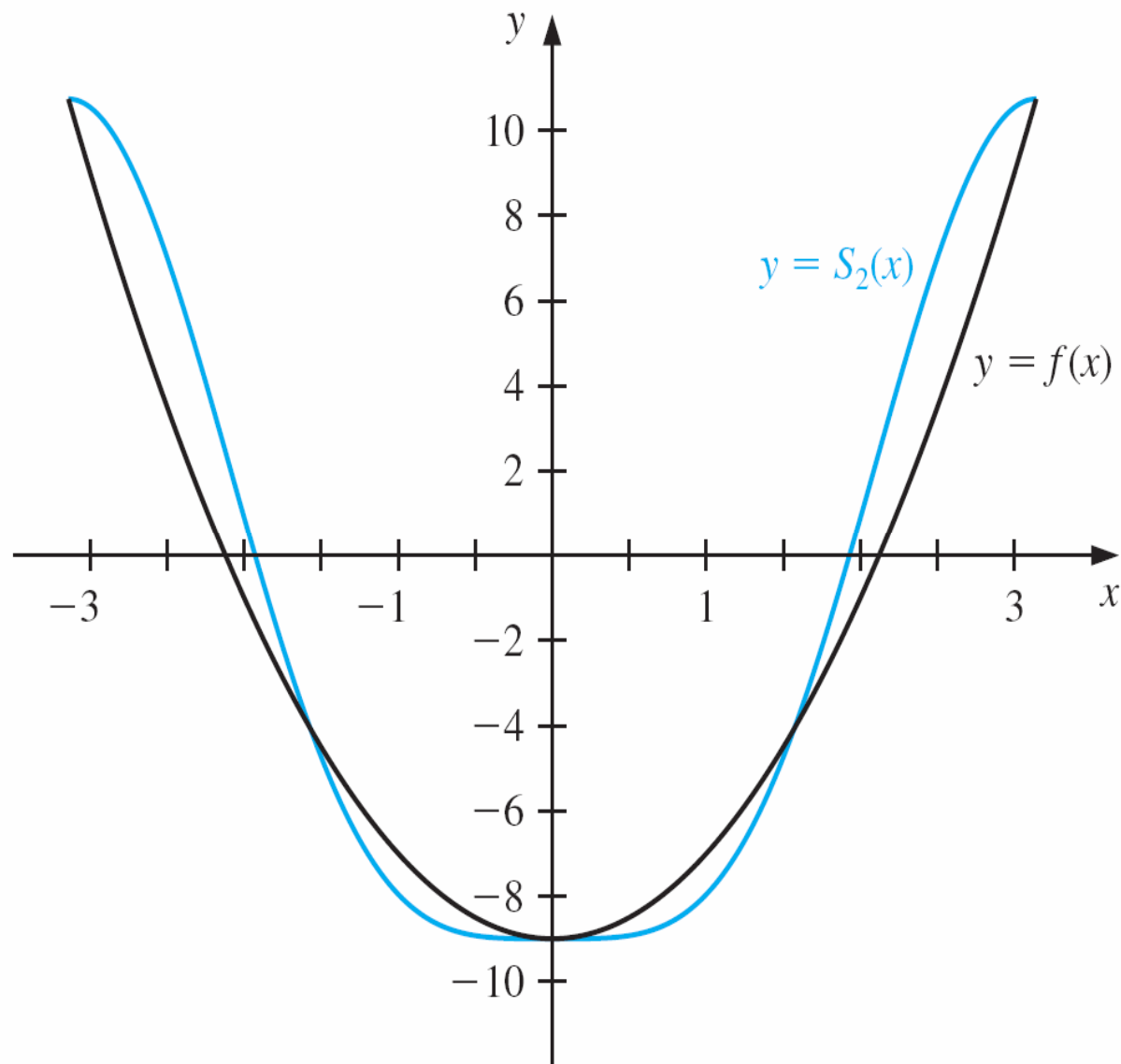


Figure 8.17

