

Homework 16: Orthogonal Bases

1. §6.1, #38(b).
2. §6.2, #41, 42.
3. §6.3, #9, 38, 42(a).

Note. For problem 42(a), you should use the fact that the Legendre polynomials are orthogonal with respect to the inner product given in the first sentence of Example 9.