1. Study Section 12.5.

2. Do Exercise 12.5.

3. Do Exercise 12.14.

4. Prove (12.16.1).
    There are two base cases, one for $n = 1$ and one for $n = 2$. For the induction case, there are two inductive
    hypotheses–one with $n - 1$ and one with n. You can assume both of them to prove the case for $n + 1$. Start
    with the RHS, use (12.14), then the inductive hypotheses.

5. Prove (12.35a).
    The base case is $n = 1$.

6. Prove (12.35b).
    The base case is $n = 1$.