1. Problem 1 of the notes for Lecture 5 (on page 3 of the notes).
2. Problem 2 of the notes for Lecture 5 (on page 7 of the notes).
3. Problem 4 of the notes for Lecture 5 (on page 12 of the notes).
4. Problem 5 of the notes for Lecture 5 (on page 14 of the notes).
5. Problem 9 of the notes for Lecture 5 (on page 16 of the notes).
6. Problem 11 of the notes for Lecture 5 (on page 17 of the notes).
7. Problem 12 of the notes for Lecture 5 (on page 17 of the notes).
8. Problem 16 of the notes for Lecture 5 (on page 18 of the notes).