Monday

1. Exercise 1 in Section 8.17 of Apostol, Volume II.
2. Exercise 1 in Section 8.22 of Apostol, Volume II.
3. Exercise 14 in Section 8.22 of Apostol, Volume II. (The term “Jacobian matrix,” which appears in this problem, just means the total derivative matrix.)

Tuesday

4. Exercise 6 in Section 9.8 of Apostol, Volume II.
5. Exercise 9 in Section 9.8 of Apostol, Volume II. (Just compute $\partial f/\partial x$ and $\partial f/\partial y$; you may omit $\partial^2 f/\partial x \partial y$.)

Thursday

6. Exercise 2 in Section 8.24 of Apostol, Volume II.