Math 260 Problem Set 7.

Due March 24

Read Apostol II, Theorem 8.12 (statement)

1. Compute the partial derivaties in term as directional derivatives of the total derivative.

2. Apostol II, **8.14**: 2, 3, 11.

3. Apostol II, **8.22**: 15.

4. Shurman 4.3.2, 4.3.3

5. Shurman 4.4.1, 4.4.2

EXTRA CREDIT

1. Assume that $f : \mathbb{R}^n \to R^m$ is differentiable at a point a. Show that the totak derivative at a is the Jacobian matrix at a.