MATH534A, Problem Set 2, due Sep 8

All problems are worth the same number of points.

1. Show that for two smooth atlases the set of smooth functions is the same (i.e. a function is smooth w.r.t. one atlas iff it is smooth w.r.t. the other one) if and only if the union of those atlases is a smooth atlas.

2. Problem 1-7 from the textbook.

3. Problem 1-9 from the textbook.

4. Problem 2-3 from the textbook.

5. Problem 2-11 from the textbook.