Math F412: Homework 10 **Due: April 15, 2005**

These problems from do Carmo:

- 3-5: 12, 14

Also:

1.

a Suppose S is a surface given as the graph of a function, i.e. there is a chart $\sigma(u, v) = (u, v, f(u, v))$ for some smooth function f. Compute the mean curvature of the surface with respect to this chart.

b Show that Sherk's surface with $f(u, v) = \log\left(\frac{\cos(u)}{\cos(v)}\right)$ is a minimal surface.