## MATH 141: Differential Topology

 $\begin{array}{c} \text{Homework} \ \#11 \\ \textit{Due December 4, 2014} \end{array}$ 

Please turn in the starred (\*) problems only.

- 1.\* Show that  $S^n$  and  $T^n = S^1 \times \cdots \times S^1$  are not diffeomorphic, for  $n \geq 2$ .
- 2.\* Exercise 1.8.15
- 3. Exercise 2.3.12
- 4.\* Exercise 2.3.16
- 5. Exercise 2.3.19