## INTRO TO ALGEBRAIC TOPOLOGY
## HOMEWORK 2 DUE FEBRUARY 5

Turn in the following:
(1) Consider the usual cell structure on $S^n$ consisting of one 0-cell and one $n$-cell. Also consider the standard cell structure on $I$ given by two 0-cells connected by a 1-cell. Describe the cell structure on $SX$, the suspension of $X$.
(2) Show that the smash product $S^m \wedge S^n$ is $S^{m+n}$ by considering the induced cell structure on $S^m \wedge S^n$.
(3) Hatcher Exercise 0.10 (p. 19)
(4) Hatcher Exercise 0.19 (p. 19)
(5) Hatcher Exercise 0.23 (p. 20)