HOMEWORK #6, DUE 11/10

MATH 504A

Problems 10.5.1,2 and 17.1.1,3 in Dummit and Foote, and the following: given projective resolutions $\{P_i\}, \{Q_i\}$ with boundary maps d_i, d_i' of left R-modules M, N, the 0 map from M to N, and maps f_i from P_i to Q_i making the obvious diagram (in class) commute, show that there are maps $s_i : P_i \to Q_{i+1}$ such that $d_1' s_0 = f_0, d_{i+1}' s_i + s_{i-1} d_i = f_i$ for $i \geq 1$.