CSE 531
Assignment 6
Due November 16, 2000

1. Consider the problem HALF-CLIQUE defined by: given an undirected graph G of n vertices, is there a clique in G of size at least $n/2$? Show that HALF-CLIQUE is NP-complete.

2. Consider the problem CLUSTER defined by: given a finite set X, a nonnegative distance function $d(x, y)$ for all $x, y \in X$, and numbers k and b, is there are partition of X into $X_1, \ldots X_k$ such that for all $1 \leq i \leq k$ and pairs $x, y \in X_i$, $d(x, y) \leq b$? Show that ClUSTER is NP-complete.