Fall 2008 Math 225 Miniproject for Chapter 9, Section 1

This miniproject asks you to create graphs where the vertices represent MSUM buildings. Consider the following MSUM buildings.

Center for Business	Maclean Hall	Lommen Hall
Owens Hall	Roland Dille Center for the Arts	Livingston Lord Library
King Biology Hall	Hagen Hall	Comstock Memorial Union
Flora Frick Hall	Science Lab Building	Murray Commons
Bridges Hall	Weld Hall	Nemzek Hall

- (a) Create a graph with the vertices representing the buildings and where an edge connects two buildings if you can get from one to another without going outside.
- (b) Create a graph with the vertices representing the buildings and where an edge connects two buildings if *you* have a class in each of them this semester.
- (c) Create a graph with the vertices representing the buildings and where an edge connects two buildings if *you* have been in both of them in the previous seven days (state which seven days that you are talking about).
- (d) Is the graph in part (a) a connected graph?
- (e) Is the graph in part (b) a connected graph?
- (f) Is the graph in part (c) a connected graph?
- (g) Are there any isolated vertices in the graph in part (a)?
- (h) Are there any isolated vertices in the graph in part (b)?
- (i) Are there any isolated vertices in the graph in part (c)?