

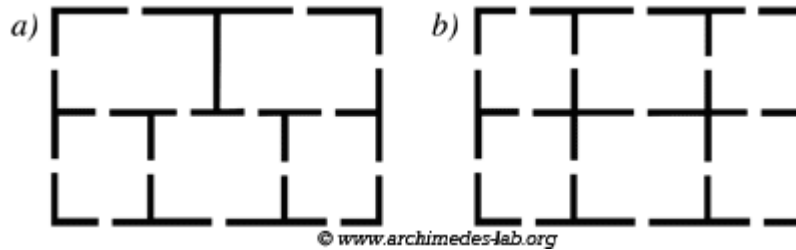
DUE: _____

MATH 101

Name: _____

GRAPH THEORY EXERCISES
EULERIAN GRAPHS & REPRESENTATION

Here are two additional “houses” like the one we worked with in class. DRAW 2 GRAPHS (one for each “house”) *consisting of vertices and edges* to **model** these diagrams. Your vertices should represent locations, and your edges should represent connections. USE your graph to determine if it is possible to visit every room using each door exactly once. **IF** it is possible, explain why in a mathematically precise way based on our study of graph theory, and draw this path on the “house” to show the answer. **IF** it is not possible, explain why in a mathematically precise way based on our study of graph theory.



Work for diagram *a*:

Work for diagram *b*: