MATH 416: EXAM 2 Corrections

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Problem (1.) 8 different offices are painted one of the three colors: white, blue, or green. How many ways are there to paint the offices if each color is used at least once. (That is, there is at least one white, one blue, and one green office.)

Problem (7.) Consider the floor plan given below. Use graph theory ideas(i.e, draw an appropriate graph, explain what are the vertices and edges, and what are you looking for in graph theory terms) to answer the following questions.

(b.) Is it possible to enter through the front door, travel through each room exactly once, and exit through the read door? If yes, construct such walk. If not, explain why not.

$B - A - E - F - G - C - D - H$, here the vertices are the doorways and the edges are walking between the rooms. This walk is us walking from room B to room A to room E to room F to room G to room C to room D to room H.