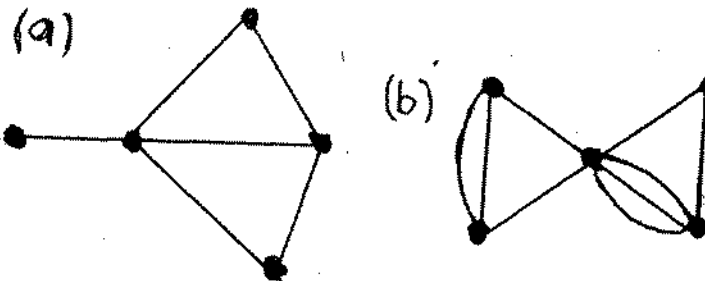


MATH213 HW 12

Due Wednesday, November 16

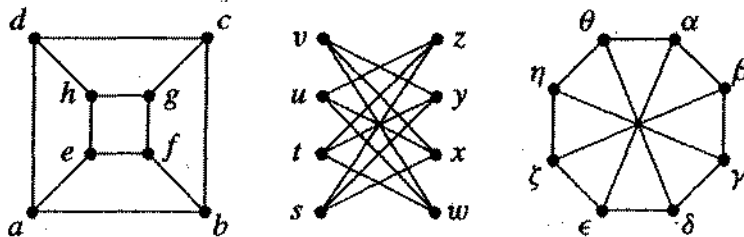
Solve five of the six problems below.

1. Find adjacency matrices and incidence matrices of the graphs below:



2. Draw the graph if $A = \begin{pmatrix} 0 & 1 & 0 & 1 \\ 1 & 0 & 1 & 0 \\ 0 & 1 & 0 & 1 \\ 1 & 0 & 1 & 0 \end{pmatrix}$ is its adjacency matrix. Draw the graph if the same matrix A is its incidence matrix.

3. Determine which graphs below are isomorphic. Prove your statements! Just claims do not count.



4. # 34 on Page 590.

5-6. Find shortest paths from every vertex to all other vertices in the graph below using the Floyd-Warshall algorithm.

