

Math 61 Quiz Week 8 10 minutes. Use pen only

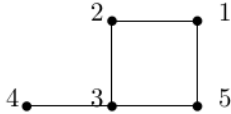
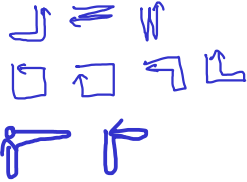
Your Name: _____

UCLA ID: _____

SECTION: Cross one box below

Day \ T.A.	John	Zach	Sam
Tuesday	1A	1C	1E
Thursday	1B	1D	1F

Problem 1. For the following graph write its adjacency matrix $A = A_G$.



$$A_G = \begin{bmatrix} 0 & 1 & 0 & 0 & 1 \\ 1 & 0 & 1 & 0 & 0 \\ 0 & 1 & 0 & 1 & 0 \\ 0 & 0 & 1 & 0 & 0 \\ 1 & 0 & 1 & 0 & 0 \end{bmatrix}$$

+ 1 per entry

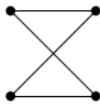
Problem 2. If $A = A_G$ is the adjacency matrix from the previous problem, then $A_{2,2}^4 = \underline{79}$.

walks length 4 from 2 to 2

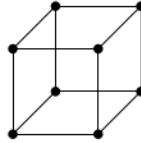
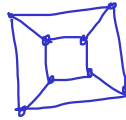
Problem 3. For the following graphs decide if they are planar or not.



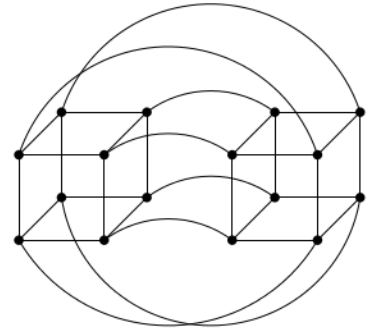
planar



planar



planar



not planar