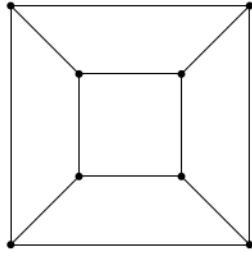


Math 61 Quiz Week 7 10 minutes. Use pen only

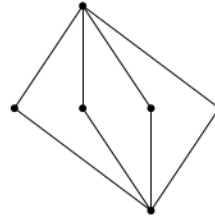
Your Name: _____ UCLA ID: _____

SECTION: Cross one box below

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



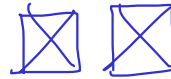
Problem 1.



Problem 2.

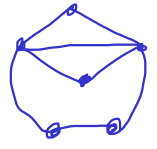
Problem 1. Circle all the options that apply The graph on the left:

- 4
- (a) bipartite,
 - (b) Eulerian,
 - (c) has Hamiltonian cycle.
 - (d) only graph with degree sequence (3, 3, 3, 3, 3, 3, 3, 3).



Problem 2. Circle all the options that apply The graph on the right:

- 4
- (a) bipartite,
 - (b) Eulerian,
 - (c) has Hamiltonian cycle.
 - (d) only graph with degree sequence (2, 2, 2, 2, 4, 4).



- has to be connected
- two 4-vertices are not adjacent

Problem 3. For the following weighted graph we apply Dijkstra's algorithm to find the shortest weighted path from vertex a to vertex z . Fill in the missing vertex weights $L(v)$: $X = 4$ and $L(z) = Y = 6$, and **mark** the shortest weighted path from a to z .

3

\bullet active vertex \circ processed vertex

$3+1=4$
 $\text{Min}(7, 4+2)$
 \parallel
 6