

PLANARITY HOMEWORK

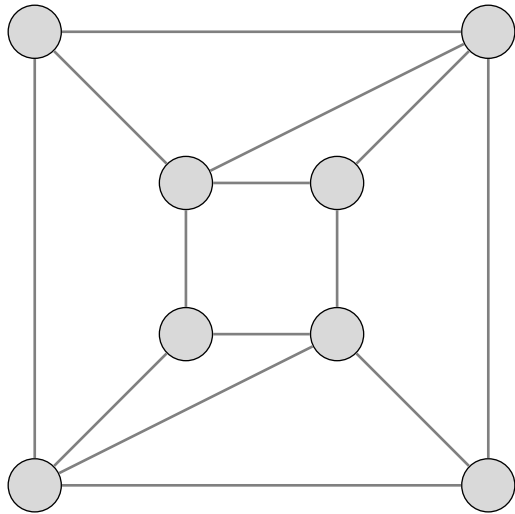
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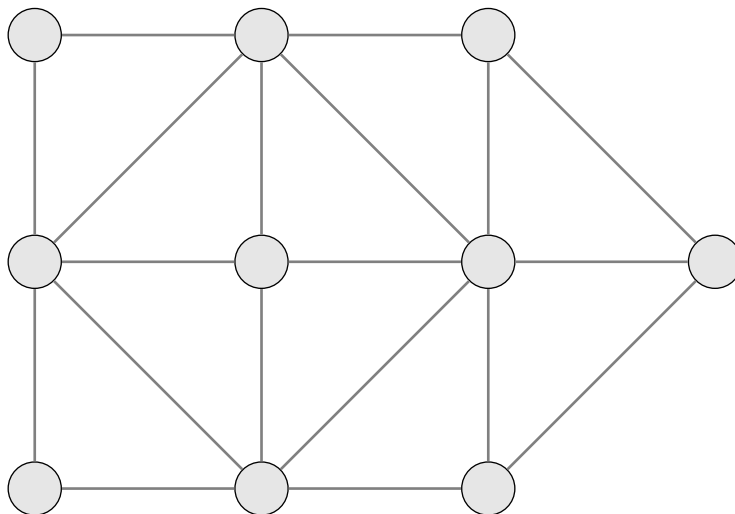
1. Prove that the graph $K_{2,4}$ is planar by producing a planar drawing.
2. Make a case that $K_{2,n}$ is planar for every positive integer n , for example, by providing a convincing generic drawing.
3. Draw a non-planar graph with 6 vertices and 9 edges.
4. Draw a non-planar graph with 5 vertices and 10 edges.

Verify the Euler's formula for the following planar graphs by stating the number of vertices, edges, and faces.

5.



6.



ANSWERS