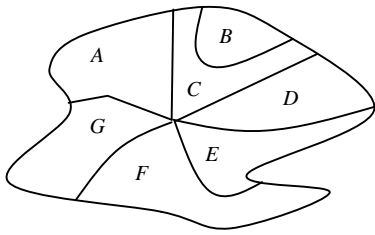
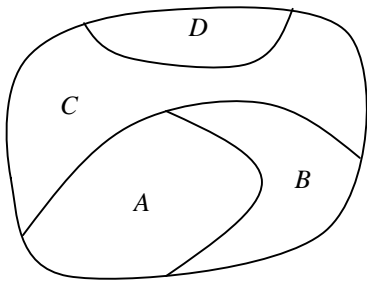
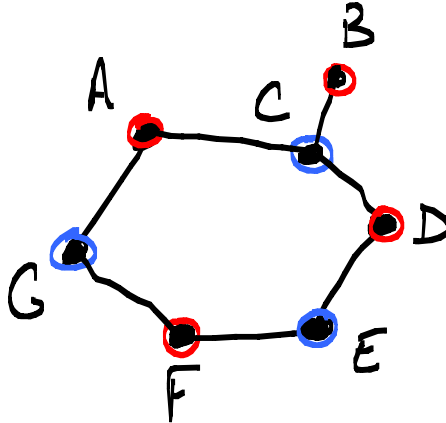


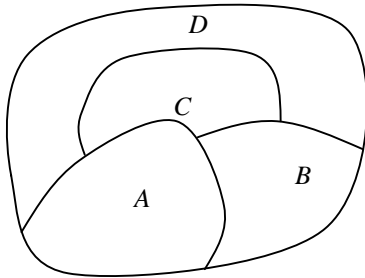
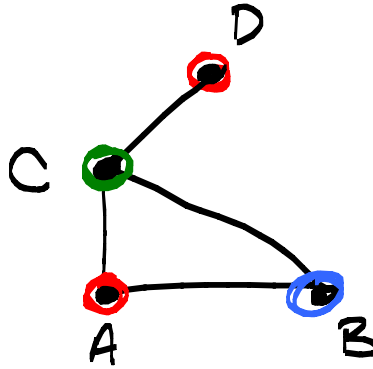
1. Create a Graph of each MAP such that NO 2 EDGES intersect.



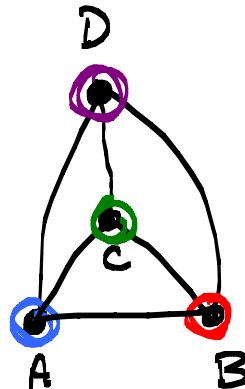
Chromatic Number: 2



Chromatic Number: 3



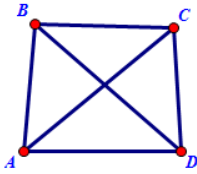
Chromatic Number: 4



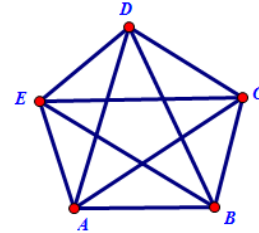
3. Create example of the Following Graphs in a planar configuration if possible:

Complete Graphs:

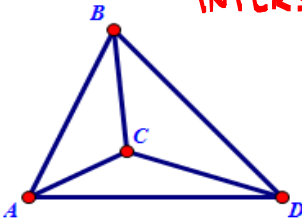
K_4



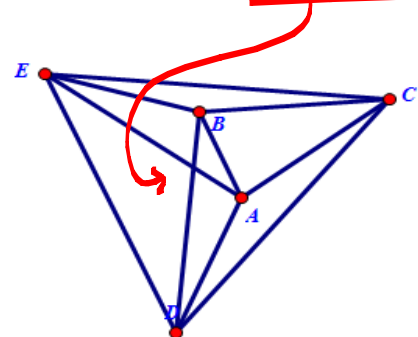
K_5



"PULLED APART" IN A PLANAR CONFIGURATION SUCH THAT NO 2 EDGES INTERSECT

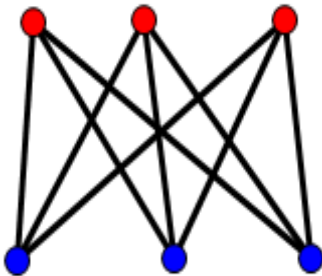


NOT POSSIBLE TO DRAW IN SUCH A WAY THAT NO TWO EDGES INTERSECT.

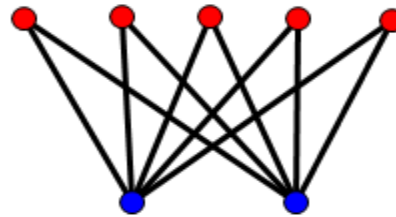


Complete Bipartite Graphs:

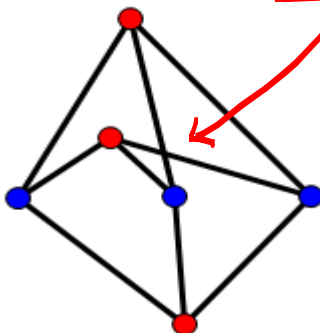
** $K_{3,3}$



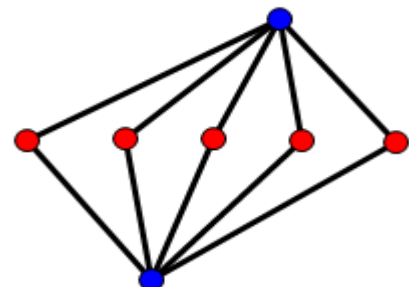
$K_{5,2}$



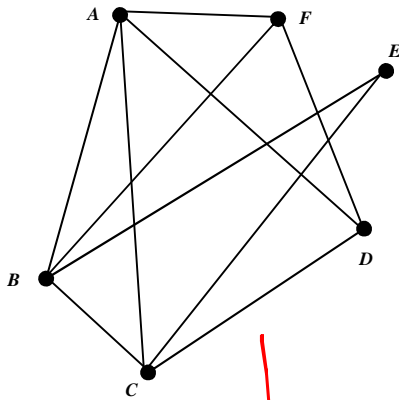
NOT POSSIBLE TO DRAW IN A PLANAR CONFIGURATION WHICH SUGGESTS NO MATTER HOW WE TRY TO DRAW THE GRAPH, AT LEAST ONE PAIR OF EDGES WILL INTERSECT.



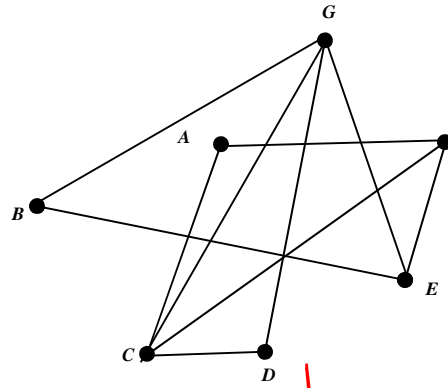
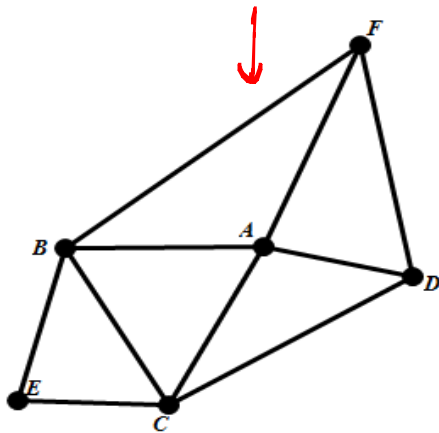
"PULLED APART" IN PLANAR CONFIGURATION.



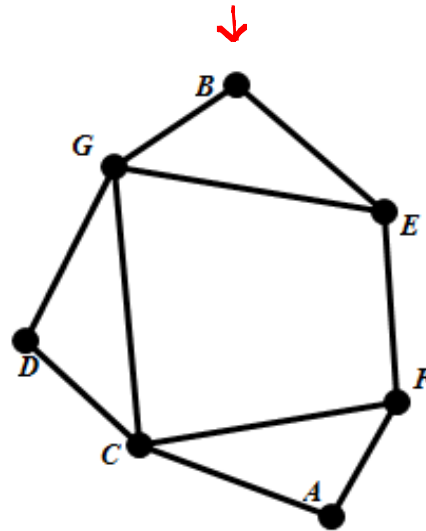
4. The following GRAPHS are PLANAR Redraw them so that none of the edges intersect (Remember adjacent vertices must remain adjacent in the new graph).



"PLANAR CONFIGURATION"

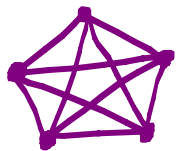


"PLANAR CONFIGURATION"



7. This Graph is not planar because it contains a K_5 . Highlight the K_5 in the following graph.

ONLY DEGREE 3



EVERY VERTEX OF A K_5 IS A DEGREE 4 VERTEX.

