Name ..... group .... row .... col....

1.	2.	3.	4.	5.	6.	$\sum$

1. Graph G_1 is planar. [YES] [NO] Prove your answer.

2. Graph G_2 is planar. [YES] [NO] Prove your answer.

3. Find chromatic numbers of graphs G_1 and G_2. Prove your answers.

4. Is it possible to partition the set of edges of $K_{7,7}$ into 2 sets is such a way that every of these sets induce a planar graph ? And why not?

5. Proof that if in G there is at most 6 vertices of degree bigger or equal to 5 then G is 6-colourable.

6. Prove that if G is planar 3-regular graph such that every face is a triangle then the number of vertices is equal to the number of faces.