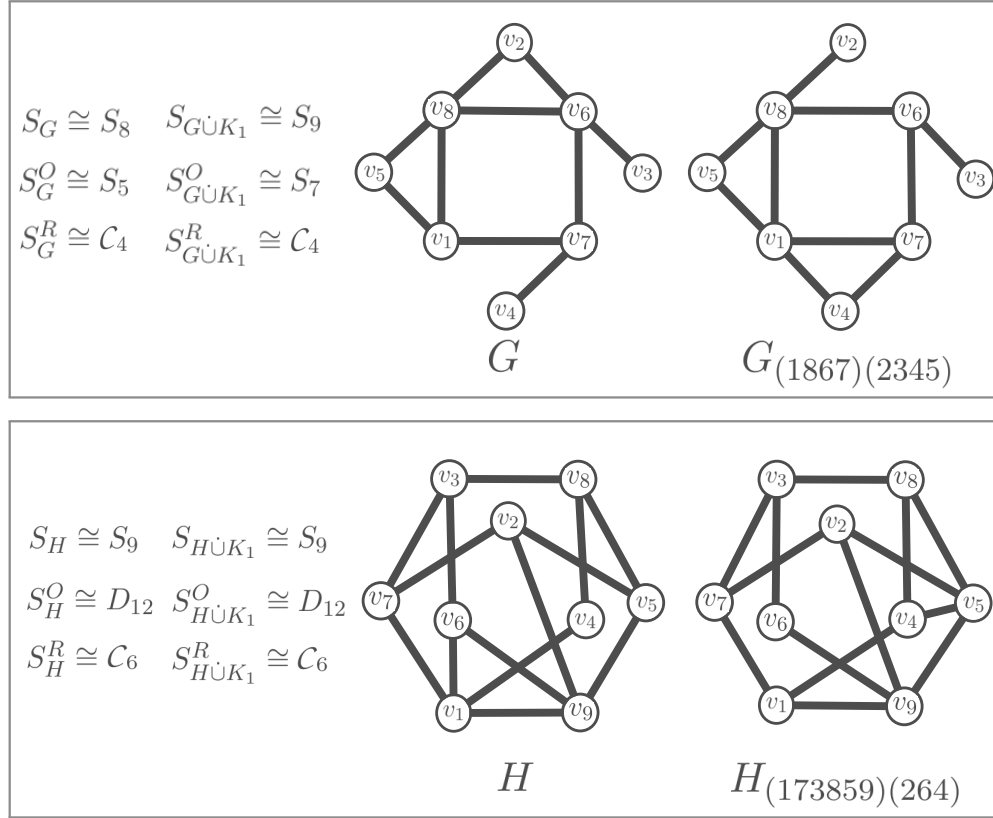


Cannot exclude Weird nor Ordinary Edge-Replacements.



Explanation: Two weird graphs G of order 8, and H of order 9. The graph $G_{(1867)(2345)}$ is obtained from G by the weird edge-replacement $26 \rightarrow 14$, while $H_{(173859)(264)}$ is obtained from H by the weird edge-replacement $16 \rightarrow 45$. We denote the reachability groups of G and $G \dot{\cup} K_1$ by S_G and $S_{G \dot{\cup} K_1}$ respectively, and the same for H . Since $S_G \cong S_8$ and $S_{G \dot{\cup} K_1} \cong S_9$, then G itself is a local-and-global amoeba. Similarly, since $S_H \cong S_{H \dot{\cup} K_1} \cong S_9$, it follows that H itself is a local-but-not-global amoeba. Moreover, we write S_G^O and S_G^R for the groups generated only by permutations associated to -respectively- ordinary edge-replacements of G and weird edge-replacements of G , and correspondingly for the graphs $G \dot{\cup} K_1$, H and $H \dot{\cup} K_1$. Notice all these groups have different structures than those obtained when considering the permutations associated to every feasible edge-replacement of their respective graph, i.e., their reachability group (e.g., $S_G^R \cong C_4 \not\cong S_G$ for the cyclic group C_4 with 4 elements and $S_H^O \cong D_{12} \not\cong S_H$ for the dihedral group D_{12} with 24 elements). Thus, neither type of replacement can be used to generate the permutations associated to the other, and therefore we need to consider both weird and ordinary edge-replacements to properly detect amoebas.

Note: G and H can be found through the **g6** format strings "G?^rcmW" and "HCQf@rK" in the thesis-examples files. Also the spanish word for "weird" is "raro", hence the superscript R .