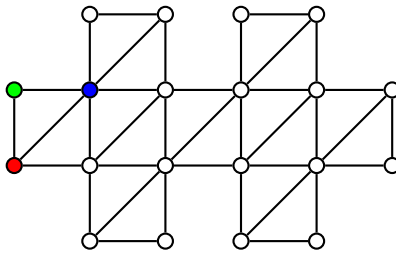


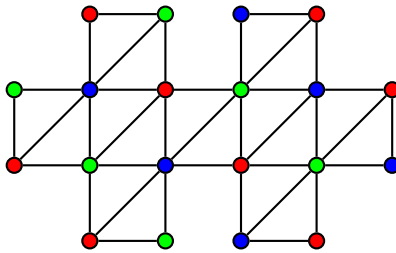
Math589 Homework 4

Note: To submit the k-th homework, simply put your files in the folder HWk on CoCalc, and it will be collected on the due day.

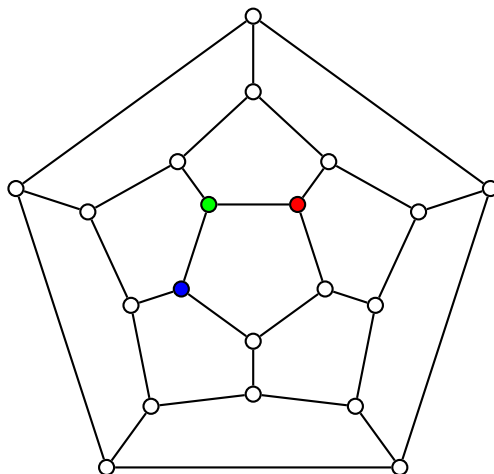
- Let G be the graph below. Find the chromatic number $k = \chi(G)$ and give a proper k -coloring of G .



Solution. It is an outer-planar graph that contains a triangle, so $\chi(G) = 3$.



2. Let G be the graph below. Find the chromatic number $k = \chi(G)$ and give a proper k -coloring of G .



Solution. It is 3-colorable and contains an odd cycle, so $\chi(G) = 3$.

