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Aufgabenblatt 8
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# Praktikum Algorithmen-Entwurf

*Due Date: Monday, 9th December 2013, 14:00*

## Aufgabe 1 (Planar graph coloring `coloring`)

Consider a strongly connected graph $G = (V, E)$. Implement and animate the third greedy algorithm from the tutorial, in a way that a "good" coloring is achieved in time $O(|V| \log |V| + |E|)$. The nodes should be displayed in their respective color and should be labelled with their respective position in the ordering $\sigma$. After termination of the algorithm, the number of colors used is displayed.

## Remarks

As input for your algorithm, use the undirected graphs `color1.gw` to `color6.gw`. Graphs `color1.gw` to `color4.gw` are planar, the other two are general graphs.