03-C-02

Triangulation

Fisk's Proof

- 3-Coloring

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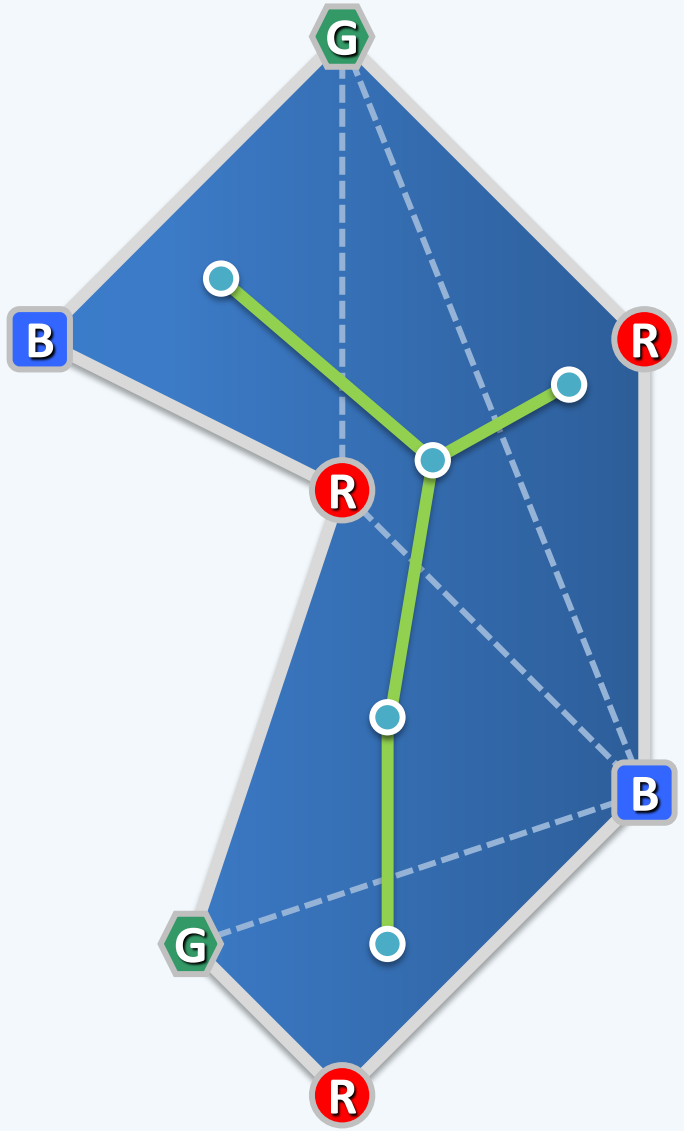
Dual Tree

- When P has no holes,

  the dual graph of Tri(P)

  is a tree

- And Tri(P) is hence 3-colorable



Algorithm

- Start at any node (triangle) and

  Color its 3 vertices with $\mathcal{R}$, $\mathcal{G}$ and $\mathcal{B}$ resp.

- Traverse the dual tree

- Whenever we enter a next triangle,

  assign the new vertex with the third color