Discussiones Mathematicae
Graph Theory xx (xxxx) 1–3

SAMPLE ARTICLE BASED ON `dmgt` CLASS

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Abstract

This sample article contains typical elements of article: definitions, theorems, proofs etc.

Keywords: Type Keywords of your paper here.

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1. Introduction

Here we have some definitions.

Definition [1]**.** A graph is said to be *embeddable in the plane* or *planar*, if it can be drawn in the plane so that its edges intersect only at their ends.

Theorem 1. *K_5 is not planar.*

Proof. See [1].

■

Theorem 2 (Eulers's formula)**.** *If G is a connected plane graph, then*

$$v - e + f = 2,$$

where v – number of vertices of G, e – number of edges of G and f – number of faces of G.

Proof of Euler's formula. See [1].

■

Theorem 3 (Kuratowski)**.** *A graph is planar if, and only if it contains no subdivision of K_5 or $K_{3,3}$.*

Proof of Kuratowski's theorem. In the proof we need two lemmatas:

Lemma 4. *Lemma 1.*

***Proof of lemma* 4.** Proof inside other proof is ended with white square.

□

Lemma 5. *Lemma 2.*

***Proof of lemma* 5.** This is a proof for second lemma.

□

Here should be a proper proof.

■

Remark 6. Example of remark. Remarks, examples, notes and problems are displayed with non-italic font, like definitions, but with numbers.

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