

A SAMPLE ARTICLE

MATHNOTEBOOK

ABSTRACT. The same document as the AMSArticle notebook sample, typeset in LaTeX, so the two can be compared side by side: title block, sectioning, theorem environments numbered per section, displayed equations, and a bibliography.

1. STATEMENT

Definition 1.1. *A graph is a pair (V, E) with E a set of unordered pairs of distinct elements of V .*

Theorem 1.2. *The theorem environments share one counter, so this theorem follows the definition above and both reset at the next section.*

$$(1) \quad \sum_{v \in V} \deg(v) = 2|E|$$

Proof. Summing degrees counts every edge twice. □

2. DISPLAYED MATHEMATICS

An unnumbered display, for an aside:

$$\chi(G) \leq \Delta(G) + 1$$

Inline mathematics sits in text at the surrounding size, as in $e^{i\pi} = -1$, and a numbered display is referenced by the live number the palette copies, as in (2).

A numbered display, aligned as an align environment converts:

$$(2) \quad \partial\omega = 0$$

$$(3) \quad \omega \wedge \omega = -\omega \wedge \omega$$

3. SUBSECTIONS

3.1. A subsection. Subsection and subsubsection headings are numbered within their parent and reset with it.

3.1.1. A subsubsection.

Remark 3.1. Remark, Question, and Observation are set like this one — italic label, upright body.

Date: Set with the `amsart` class.

REFERENCES

- [1] S. Horvat, *MaTeX: LaTeX labels in Mathematica*, <https://github.com/szhorvat/MaTeX>
- [2] Y. Ollivier, *Ricci curvature of Markov chains on metric spaces*, <https://arxiv.org/abs/0810.5625>