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# Description and Illustration of Use: A L<sup>A</sup>T<sub>E</sub>X Template for The American Mathematical Monthly

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**Double Blind No Name1 and Double Blind No Name2**

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**Abstract.** Abstracts for articles or notes should entice the prospective reader into exploring the subject of the paper and should make it clear to the reader why this paper is interesting and important. The abstract should highlight the concepts of the paper rather than summarize the mechanics. The abstract is the first impression of the paper, not a technical summary of the paper. Excessive use of notation is discouraged as it can limit the interest of the broad readership of the MAA, and can limit searchability of the article. Your abstract should be 250 words or less.

The MONTHLY's readers expect a high standard of exposition; they look for articles that inform, stimulate, challenge, enlighten, and even entertain. MONTHLY articles are meant to be read, enjoyed, and discussed, rather than just archived. Articles may be expositions of old or new results, historical or biographical essays, speculations or definitive treatments, broad developments, or explorations of a single application. Novelty and generality are far less important than clarity of exposition and broad appeal. Appropriate figures, diagrams, and photographs are encouraged.

- MONTHLY articles are 6 to 20 pages.
- MONTHLY notes are 2 to 5 pages.

**1. MANUSCRIPT PREPARATION.** *American Mathematical Monthly* authors are expected to submit their manuscripts in L<sup>A</sup>T<sub>E</sub>X. Using this template as a guide will save everyone time and allow your article to smoothly navigate through the submission process.

The MONTHLY style incorporates the following L<sup>A</sup>T<sub>E</sub>X packages. Therefore, these packages should *not* be included in the document preamble.

- times
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- color
- AMS styles: amsmath, amsthm, amsfonts, amssymb
- url

Use of other L<sup>A</sup>T<sub>E</sub>X packages should be minimized as much as possible. Math notation, like  $c = \sqrt{a^2 + b^2}$ , can be left in T<sub>E</sub>X's default Computer Modern typefaces for manuscript preparation; or, if you have the appropriate fonts installed, the `mathtime` or `mtpro` packages may be used.

Web links can be embedded using the `\url{...}` command, which will result in something like <http://www.maa.org>. These links will be active and stylized in the online publication.

**Headings.** `\section{...}` headings are all caps and are run-in to the text.

`\subsection{...}` headings are initial cap only and are also run-in to the text. It is not necessary to add font commands to make the math within headings bold and sans serif; this change will occur automatically when the production style is applied.

**Graphics.** Figures for the MONTHLY can be submitted as either color or black & white graphics. If color graphics are included with the submission, they will be used for the online publication only, and converted to black & white images for the print journal. If an author wishes to receive a quote to have color images printed, please let the Editorial Office know.

Please follow these guidelines to ensure that your figures look their best online and in print.

1. Line weight should be no less than .5 pt and rarely thicker than 1 pt. This can be a problem in tikz where the default is less than .5 pt.
2. Use the appropriate fonts (Times New Roman, italic, bold, etc. to match the text) and font size for figures (9 pt labels and 8 pt for axes).
3. The appropriate resolution for bitmaps is a minimum 300 dpi. High resolution bitmaps are acceptable as long as you use the correct fonts, font size, and line weight—bitmaps are not editable in the same way as EPS or SVG files so you must negate the need for them to be edited.
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**Tables.** Tables in the MONTHLY’S style appear with the caption above the table.

**Table 1.** Here is a caption for this table.

| Monotonicity | $m$      | $k_i$                  | Protocol?       |
|--------------|----------|------------------------|-----------------|
| Monotone     | $\geq 3$ | Arbitrary              | No [1]          |
| Monotone     | 2        | Arbitrary              | Yes [2]         |
| Arbitrary    | 2        | $k_1 = 1$ or $k_2 = 1$ | Yes [Theorem 2] |
| Non-monotone | 2        | $k_1, k_2 \geq 2$      | No [Theorem 3]  |

**Theorems, definitions, proofs, and Etc.** Following the defaults of the `amsthm` package, styles are provided for `theorem`, `definition`, and `remark`, although the latter two use the same style.

**Theorem 1 (MAA Theorem).** *Theorems, lemmas, axioms, and the like use italicized text. These environments (along with definitions, remarks, and notes) will be numbered in consecutive order.*

*Proof.* Proofs are set in roman (upright) text, and conclude with an “end of proof” (q.e.d.) symbol that is set automatically when you end the proof environment. When the proof ends with an equation or other non-text element, you need to add `\qedhere` to the element to set the end of proof symbol; see the `amsthm` package documentation for more details. ■

**Definition 2 (Monthly definitions).** Definitions, remarks, and notation are stylized as roman text.

**Remark 3.** Remarks stylize the same as definitions.

The MONTHLY’S equations are numbered with integers, beginning with (1), on the right side of the equation when using the `equation` environment.

$$c = \sqrt{a^2 + b^2} \quad (1)$$

**References.** Beginning in January 2024 the MONTHLY will use the NLM reference style. Bib<sub>T</sub>E<sub>X</sub> users should use `vancouver.bst` to typeset their references.

*The Code.* To cite a reference in-text use

`\cite{key}`

where `key` is the name of the reference used in your `.bib` file. In the place where you want to put your bibliography, type the following commands:

`\bibliographystyle{vancouver}`  
`\bibliography{VancouverExamples}`

where `vancouver` is the name of a `.bst` file and `VancouverExamples` is the name of your `.bib` file.

*Example with Citations.* We cite many authors in this paper whose work is notable, such as [1, 3, 4, 5, 6, 2, 7]. The works by these authors are important to read, [8, 9, 10]. In addition, this work is important [11].

**2. MANUSCRIPT SUBMISSION.** All authors must produce at least two documents as part of their formal manuscript submission, a cover letter and an anonymized manuscript. Manuscripts must be submitted through the MONTHLY’S Editorial Manager system: <https://www2.cloud.editorialmanager.com/monthly/default2.aspx>.

**Cover Letter.** The first document is a cover letter that must include the following.

- all author names, affiliations, and email addresses
- a statement of original research
- a statement about why your manuscript fits into the aims and scope of the MONTHLY.

- please disclose any conflicts of interest
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- No revisions or updated manuscripts will be considered while a manuscript is under review.

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- Funding Information. **If applicable**, please supply all details required by your funding and grant-awarding bodies as follows:
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**Mathematics Subject Classification.** Authors should provide the appropriate 2020 Mathematics Subject Classification terms for their paper.

- The "Mathematical Subject Classification Index (MSC)," is available at <http://www.ams.org/msc/msc2020.html>, or in pdf form at <https://www.mathscinet.ams.org/msc/pdfs/classifications2020.pdf>.
- When submitting your manuscript, please provide at least one and up to three 5-digit MSC classifications that best describe your paper.

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