



## Title of the paper\*

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### Abstract

The abstract should state the problem studied and the principal results proved. It should be concise, it should not include complicated formulas and embedded equations, and mathematical formulae should be kept to a minimum. (The abstract needs to be able to be converted to HTML for posting on the website!) It should NOT include explicit citations.

The abstract should not contain citations or references to  $\text{\LaTeX}$  labels used in the document, nor should it contain complicated mathematical formatting.

*Keywords:* Finite group; directed graph; permutation.

*Math. Subj. Class. (2020):* 05C15, 05C10

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## 1 The first section

Text in the first section. Text in the first section. Text in the first section. Text in the first section. Text in the first section. Text in the first section. Text in the first section. Text in the first section.

All references to theorems, figures, sections, etc. should be handled by `\label{...}` and `\ref{...}` calls. For example, in Section 2, we include some text, while in Sections 3 and 4 we give examples of our theorem environments. In the proof of Theorem 3.2, we use Definition 3.1 to complete the proof. Finally, in Figure 1 we show a very small rectangle.

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\*Empty if not required.

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## 2 The second section

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### 2.1 A small subsection

Text in the subsection.

## 3 Theorem environments

The class has the following major environments defined.

**Definition 3.1.** Definition.

**Theorem 3.2.** *The first theorem.*

*Proof.* Following the suggestion presented in [2], we apply Definition 3.1 to observe some stuff. This allows us to complete the proof of the first theorem. Notice we're using a built-in proof environment. Please do the same!  $\square$

## 4 More theorem-like environments

The following theorem-like environments are pre-defined:

```
\theoremstyle{plain}
\newtheorem{thm}{Theorem}[section]
\newtheorem{theorem}[thm]{Theorem}
\newtheorem{prop}[thm]{Proposition}
\newtheorem{proposition}[thm]{Proposition}
\newtheorem{lem}[thm]{Lemma}
\newtheorem{lemma}[thm]{Lemma}
\newtheorem{cor}[thm]{Corollary}
\newtheorem{corollary}[thm]{Corollary}
\newtheorem{claim}[thm]{Claim}
\newtheorem{axiom}[thm]{Axiom}
\newtheorem{conj}[thm]{Conjecture}
\newtheorem{conjecture}[thm]{Conjecture}
\newtheorem{fact}[thm]{Fact}
\newtheorem{hypo}[thm]{Hypothesis}
\newtheorem{assum}[thm]{Assumption}
\newtheorem{crit}[thm]{Criterion}
\newtheorem{cons}[thm]{Construction}
```

The following definition-like environments can be used:

```
\theoremstyle{definition}
\newtheorem{defn}[thm]{Definition}
\newtheorem{exmp}[thm]{Example}
\newtheorem{example}[thm]{Example}
```

```

\newtheorem{rem}[thm]{Remark}
\newtheorem{remark}[thm]{Remark}
\newtheorem{prob}[thm]{Problem}
\newtheorem{problem}[thm]{Problem}
\newtheorem{prin}[thm]{Principle}
\newtheorem{quest}[thm]{Question}
\newtheorem{alg}[thm]{Algorithm}

```

## 5 Figures

In this section, Figure 1 shows a small rectangle. When embedding graphics, please provide them in vector format (e.g. .pdf files) or as TikZ figures. If at all possible, do not use raster format (e.g. .bmp, .jpg or .png files).



Figure 1: A very small rectangle. Figure and table captions are *mandatory*!

## 6 Some maths formatting advice

Do not use the old, ugly and deprecated `eqnarray` environment. Use `align` instead:

$$(1+x)^2 = x^2 + 2x + 1, \quad (6.1)$$

$$(1+x)^3 = x^3 + 3x^2 + 3x + 1. \quad (6.2)$$

Equations, such as Equation (6.1), can be referenced using the `\eqref{...}` command.

The `cases` environment is your friend, as shown in the following example:

$$f(n) = \begin{cases} \frac{n}{2} & \text{if } n \equiv 0 \pmod{2}; \\ 3n + 1 & \text{if } n \equiv 1 \pmod{2}. \end{cases}$$

## 7 References

Examples of references: [2, 1, 3] and [5]. Note that you should cite every reference listed in your list of references!

### References

- [1] First A. Author. *Book Title*. Publisher, New York, third edition, 1982.
- [2] First A. Author, Second B. Author, and Third C. Author. Article title. *Journal Title*, 1(10):1–100, 1982.
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