

**SAMPLE FILE OF  
THE CLASS FILE `jokayama.cls` FOR  
MATH. J. OKAYAMA UNIV.**

dedicated to ...

MANAGING EDITOR, SECOND AUTHOR AND THIRD AUTHOR

ABSTRACT. This is a sample file of the class file `jokayama.cls` for Math. J. Okayama Univ.

INTRODUCTION

The class file `jokayama.cls` for Math. J. Okayama Univ. is a modification of the  $\mathcal{A}\mathcal{M}\mathcal{S}$  article class file `amsart.cls`. It can be used only with  $\text{\LaTeX} 2_{\epsilon}$ . To use `jokayama.cls`, write

`\documentclass[options]{jokayama}`

at the beginning of your file. The default options are

11pt, b5paper, twoside, onecolumn, leqno, centertags, final.

Please don't add options changing the type size (12pt, etc), the paper size (a4paper, etc) and the page layout (oneside, twocolumn, etc).

1. PREAMBLE

In the preamble (the part before `\begin{document}`), you may add some packages and define theorem-like environments and your macros, etc. However, for simplicity, please don't write macros which you do not need in your article. Also, please don't change the following commands on lengths and layouts:

`\textheight, \topmargin, \headheight, \headsep, \footskip,`  
`\textwidth, \oddsidemargin, \evensidemargin,`  
`\baselineskip, \baselinestretch, \parskip, \parindent,`  
`\pagestyle, \thispagestyle, \pagenumbering.`

---

*Mathematics Subject Classification.* Primary 00-01; Secondary 68-01.

*Key words and phrases.* `jokayama.cls`, class file,  $\text{\LaTeX} 2_{\epsilon}$ , ...

This research was partially supported by ...

The first author was supported by ...

1.1. **Packages.** To add packages, write

```
\usepackage{...}
```

However, the packages `amsmath`, `amssymb`, `amsthm` will be automatically loaded in `jokayama.cls`, and so you need not to write

```
\usepackage{amsmath,amssymb,amsthm}.
```

1.2. **Theorem-like and proof environments.** Since `jokayama.cls` loads the `amsthm` package, the definition of theorem-like environments will be done in the same manner as in the `amsthm` package. (For detail, see [2]). For example, the definition

```
\newtheorem{thm}{Theorem}[section]
\newtheorem{lem}[thm]{Lemma}
\theoremstyle{definition}
\newtheorem{dfn}{Definition}
\theoremstyle{remark}
\newtheorem*{rmk}{Remark}
```

will produce the following theorem-like environments:

**Theorem 1.1** (Main Theorem). *This is a Main Theorem.*

**Lemma 1.2.** *This is a Lemma.*

**Definition 1.** This is a Definition.

*Remark.* This is a Remark.

Also, the proof environments are available without defining. For example, *Proof of Main Theorem.* This is a proof of Main Theorem. □

*Proof.* This is a proof. □

1.3. **Some useful macros.** Here, we introduce some useful macros from the `amsmath` package. (For detail, see [1]).

A log-like command (upshape command in a math mode) can be defined by

```
\DeclareMathOperator{...}{...}
```

For example, the definition

```
\DeclareMathOperator{\Hom}{Hom}
```

will produce the command `\Hom` which can be used as follows:

$$\text{Hom}_R(A, B).$$

If you want to have equations numbered within sections, write

```
\numberwithin{equation}{section}
```

Then the equation number will be

$$(1.1) \quad \sum_{k=1}^n k = \frac{n(n+1)}{2}.$$

If you want to allow page breaks in a display math mode, write

`\allowdisplaybreaks`

Then page breaks will be automatically determined even in a display math mode if necessary.

## 2. INFORMATIONS

Informations for the title, author(s), the article and an abstract should be written between `\begin{document}` and `\maketitle`. In `jokayama.cls`, the following are provided.

Title	<code>\title{...}{...}</code>	title	required
Author(s)	<code>\author{...}{...}</code>	author's name	required
	<code>\address{...}{...}</code>	address	required
	<code>\email{...}</code>	e-mail address	recommended
	<code>\urladdr{...}</code>	URL address	optional
	<code>\moreinfo{...}{...}</code>	more information	optional
Article	<code>\curraddr{...}</code>	current address	optional
	<code>\subjclass{...}</code>	Mathematics Subject Classification	recommended
	<code>\keywords{...}</code>	keywords	recommended
	<code>\thanks{...}</code>	thanks	optional
	<code>\dedicatory{...}</code>	dedication	optional
Abstract	<code>\begin{abstract}</code>	abstract	recommended
	<code>...</code> <code>\end{abstract}</code>		

Details of each item are directly written in  $\LaTeX$  source file (`sample.tex`) as a comment.

## 3. ATTENTIONS

In `jokayama.cls`, plain  $\TeX$  commands `\cases`, `\matrix`, `\pmatrix` cannot work. Please change these commands as follows:

Before (plain $\text{T}_{\text{E}}\text{X}$ )	<code>\cases{ a&amp;b\cr c&amp;d }</code>	<code>\matrix{ a&amp;b\cr c&amp;d }</code>	<code>\pmatrix{ a&amp;b\cr c&amp;d }</code>
After ( $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X } 2_{\varepsilon}$ )	<code>\begin{cases} a&amp;b\\ c&amp;d \end{cases}</code>	<code>\begin{matrix} a&amp;b\\ c&amp;d \end{matrix}</code>	<code>\begin{pmatrix} a&amp;b\\ c&amp;d \end{pmatrix}</code>

Note that these commands can be used in the standard  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$  article class `article.cls`, but should not be used because their syntax (`\cr`) did not conform to standard  $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$  syntax (`\\`).

#### ACKNOWLEDGEMENT

If you want to express an acknowledgement, please write it at the end of the article as a section without section number. To do this, write

`\section*{Acknowledgement}`

#### REFERENCES

- [1] AMERICAN MATHEMATICAL SOCIETY, *User's Guide for the `amsmath` Package*, Amer. Math. Soc., 2002.
- [2] AMERICAN MATHEMATICAL SOCIETY, *Using the `amsthm` Package*, Amer. Math. Soc., 2000.

MANAGING EDITOR  
DEPARTMENT OF MATHEMATICS  
FACULTY OF SCIENCE  
OKAYAMA UNIVERSITY  
OKAYAMA, 700-8530 JAPAN

*e-mail address:* ...@math.okayama-u.ac.jp

*URL:* <http://www.math.okayama-u.ac.jp/mjou/index.html>

*fax:* xxx-yyy-zzz

*Current address:*

OTHER UNIVERSITY

OTHER ADDRESS

SECOND AUTHOR  
ADDRESS OF THE SECOND AUTHOR

*e-mail address:* 2nd@...

THIRD AUTHOR  
ADDRESS OF THE THIRD AUTHOR

*e-mail address:* 3rd@...

*(Received received date, year)*

*(Revised revise date, year)*