The tma Package*

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Abstract

The tma package provides macros and environments to assist in writing Tutor Marked Assessments (TMAs) for Open University courses.

Contents

 \ne

\tma

\pin

\course

 $\$ thedate

\theqpart

\thequestion

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1	Introduction	
The tma package simplifies the creation of TMAs by providing		
2	$\mathbf{U}\mathbf{sage}$	
Pυ	it text here.	

```
\theqsubpart
\theqsubpart
\theqpart
\theqpart
\theqsubpart
```

3 Implementation

```
1 %% tma.sty
2 %% Copyright 2025 G. I. Riley
4 % This work may be distributed and/or modified under the
5 % conditions of the LaTeX Project Public License, either version 1.3
6 % of this license or (at your option) any later version.
7\,\% The latest version of this license is in
8 % http://www.latex-project.org/lppl.txt
9\,\% and version 1.3 or later is part of all distributions of LaTeX
10\% version 2005-12-01 or later.
11 %
12 % This work has the LPPL maintenance status 'maintained'.
14 % The Current Maintainer of this work is G. I. Riley.
15 %
16\ \mbox{\%}\ \mbox{This package may be freely used, especially by, but not limited to, students,}
17 %% lecturers, and staff of the Open University. It has been created by the
18 %% efforts of many who are now or have been connected with the Open University
19 %% Students Association. No acknowledgement is _required_ for using this package
20 %% within the production of a _Tutor Marked Assessment._
```

Adapted by Peter McFarlane from various sources. All errors of style or content are mine or subsequent contributor. Acknowledgements to Bob Margolis, and also Rob Lynas (from whom some macros are plagiarised). Further contributions from Steve Mayer and Tim Dale. Annotations, in part, and further modification by Geoff Riley.

Package Options

- [alph] (default) question numbering as 1(b)(iii)
- [roman] varies question numbering to sequence used by M381 i.e. 1(ii)(c)
- [cleveref] question numbering creates automatic referencing for use with cleveref package
- [pdfbookmark] add PDF bookmarks for each question using hyperref package
- [legacy] enables old definitions of \vec and \C for backward compatibility

To use a package option, place the option(s) before the package name: \usepackage [roman, cleveref] {tma}

```
21 \RequirePackage{expl3} % LaTeX3 "experimental"
```

^{*}This document corresponds to tma v1.19, dated 2025-02-18.

3.1 Package Initialisation

```
23 %% Package Initialization
25 \ExplSyntaxOn
26 \tl_new:N \g_tma_constant_name
27 \tl_new:N \g_tma_constant_tma
28 \tl_new:N \g_tma_constant_course
29 \tl_new:N \g_tma_constant_pin
30 \tl_new:N \g_tma_constant_thedate
32 \text{ } \text{lgset:Nn } \text{g_tma_constant_name } \{name\}
33 \tl_gset:Nn \g_tma_constant_tma {tma}
34 \tl_gset:Nn \g_tma_constant_course {course}
35 \tl_gset:Nn \g_tma_constant_pin {pin}
36 \tl_gset: Nn \g_tma_constant_thedate {the~date}
38 \mbox{ } \mbox{newcommand{\name} {\g_tma_constant_name}}
39 \newcommand{\tma}{\g_tma_constant_tma}
40 \newcommand{\course}{\g_tma_constant_course}
41 \newcommand{\pin}{\g_tma_constant_pin}
42 \newcommand{\thedate}{\g_tma_constant_thedate}
44 \mbox{NewDocumentCommand{\myname}{m}{%}}
45 \tl_gset:Nn \g_tma_constant_name{#1}}
46 \NewDocumentCommand{\mytma}{m}{%}
47 \tl_gset:Nn \g_tma_constant_tma{#1}}
48 \NewDocumentCommand{\mycourse}{m}{%
49 \tl_gset:Nn \g_tma_constant_course{#1}}
50 \NewDocumentCommand{\mypin}{m}{%
51 \tl_gset:Nn \g_tma_constant_pin{#1}}
52 \NewDocumentCommand{\setdate}{m}{%
53 \date{#1}\tl_gset:Nn \g_tma_constant_thedate{#1}}
54 \ExplSyntaxOff
56 \title{\textbf{TMA: \course-\tma}}
57 \author{\textbf{\name\space\pin}}
58
60 \NewDocumentCommand{\tma@questionstring}{}{\relax}
61 \NewDocumentCommand{\setquestionstring}{m}{%
62 \RenewDocumentCommand{\tma@questionstring}{}{#1}}
63 \setdate{\today}
64
66 %% Package Loading
69 \RequirePackage{amsmath}
70 \RequirePackage{amssymb}
71 \RequirePackage{amsthm}
72 \RequirePackage{wasysym}
73 \RequirePackage{bm}
74 \RequirePackage{upgreek}
75 \RequirePackage{graphicx}
76 \RequirePackage{lastpage}
77 \RequirePackage{xifthen}
78 \RequirePackage{verbatim}
79 \RequirePackage{fancyhdr}
80 \RequirePackage{geometry}
```

```
81 \RequirePackage{calc}
82 \RequirePackage[UKenglish]{isodate} % use UK format for date
83 \cleanlookdateon % remove th,st, rd from date
84
86 %% Geometry Settings
88
89 \geometry{
90 headheight=10mm,
91 headsep=5mm,
92 bottom=25mm,
93 footskip=15mm,
94 left=30mm,
95 right=30mm,
96 marginparwidth=0mm,
97 marginparsep=0mm,
98 includemp
99 }
100
102 %% Margin Notes
104
105 \MewDocumentCommand{\marginnote}_{m}{\marginpar{#1}}
106 \MewDocumentCommand{\marginnotes}{}{
107 \geometry{
108 marginparwidth=40mm,
109
   marginparsep=5mm,
   left=20mm,
111
   right=15mm
112 }
113 }
116 %% Question Numbering
119 \newcounter{question}
120 \newcounter{qpart} [question]
121 \newcounter{qsubpart}[qpart]
123
125 %% Option Handling
127 % Define boolean flags
128 \newif\iftma@roman
129 \newif\iftma@usecleveref
130 \newif\iftma@usepdfbookmark
131 \newif\iftma@legacy
132
133 % Set default options
134 \tma@romanfalse
                       % Default numbering is 'alph'
135 \tma@useclevereffalse % Default is not to use cleveref
136 \tma@usepdfbookmarkfalse % Default is not to use pdfbookmark
                       % Default is not to use legacy definitions
137 \tma@legacyfalse
139 % Define commands with default values
140 \renewcommand{\theqpart}{\alph{qpart}}
141 \renewcommand{\theqsubpart}{\roman{qsubpart}}
```

```
142 \MewDocumentCommand{\tma@crefname}{mmm}{\claim{relax}}
143 \MewDocumentCommand{\tma@stepcounter}_{m}{\stepcounter}_{m}
146
147 % Declare options
148 \DeclareOption{roman}{%
149 \tma@romantrue%
150 }
151
152 \DeclareOption{alph}{%
153 \tma@romanfalse%
154 }
155
156 \DeclareOption{cleveref}{%
157 \tma@useclevereftrue%
158 }
159
160 \DeclareOption{pdfbookmark}{%
161 \tma@usepdfbookmarktrue%
162 }
163
164 \DeclareOption{legacy}{%
165 \tma@legacytrue%
166 }
167
168 \DeclareOption*{%
169 \PackageWarning{tma}{Unknown option '\CurrentOption'}%
170 }
172 % Process options
173 \ProcessOptions\relax
175 \typeout{************** OPTION RESULTS *********
176 \ \text{iftma@usepdfbookmark}
177 \typeout{pdfbookmark is TRUE}
178 \else
179 \typeout{pdfbookmark is FALSE}
180 \fi
181 \iftma@roman
182 \typeout{roman is TRUE}
183 \ensuremath{\setminus} else
184 \typeout{roman is FALSE}
185 \fi
186 \iftma@usecleveref
187 \typeout{cleveref is TRUE}
188 \ensuremath{\setminus} else
189 \typeout{cleveref is FALSE}
190 \fi
191 \iftma@legacy
192 \typeout{legacy is TRUE}
193 \else
194 \typeout{legacy is FALSE}
195 \fi
196 \typeout{********* END OPTION RESULTS ********
197
198
200 %% Set Up Package Based on Options
202
```

```
203 % Set question numbering
204 \iftma@roman
205 \renewcommand{\theqpart}{\roman{qpart}}
206 \renewcommand{\theqsubpart}{\alph{qsubpart}}
208 \renewcommand{\theqpart}{\alph{qpart}}
209 \renewcommand{\theqsubpart}{\roman{qsubpart}}
210 \fi
211 % Load hyperref if necessary
212 \iftma@usepdfbookmark
213 \AtBeginDocument{%
214 \hypersetup{%
215 \quad \texttt{colorlinks=true,\%}
216 linkcolor=blue,%
217 urlcolor=blue,%
218 pdfstartview=FitH,%
219 pdftitle={TMA~\tma}, %
220 pdfauthor={\name~|~\pin}, %
221 pdfkeywords={OUCU:~\pin, TMA~\tma}, %
222 pdfsubject=\course%
223 }%
224 }
225 \RequirePackage[pdfencoding=unicode,psdextra]{hyperref}
226 \fi
227
228 % Load cleveref if necessary
229 \iftma@usecleveref
230 % Ensure hyperref is loaded before cleveref
231 \@ifpackageloaded{hyperref}%
233 {\RequirePackage[pdfencoding=unicode,psdextra]{hyperref}}
234 \RequirePackage{cleveref}
235 \% Redefine commands for cleveref
236 \mbox{RenewDocumentCommand}{\mbox{tma@crefname}{mmm}{\crefname{#1}{#2}{#3}}
237 \ensuremath{\mbox{\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{$\mbox{
238 \fi
239
240\ \% Redefine commands for pdfbookmark
241 \iftma@usepdfbookmark
242 \RenewDocumentCommand{\tma@pageref}{m}{\pageref*{#1}}
243 \RenewDocumentCommand{\tma@bookmark}{0{0} +m +m}{\%}
244 \pdfbookmark[#1]{#2}{#3}%
245 }
246 \fi
247
248 \stquestionstring{Q}
249
251 %% Question Environment
254 % Set up cref names if cleveref is used
255 \iftma@usecleveref
256 \ \texttt{\question} \ \{\texttt{question}\} \ \{\texttt{question}\} \ 
257 \tma@crefname{qpart}{part}{parts}
258 \tma@crefname{qsubpart}{section}{sections}
259 \fi
260
261 \NewDocumentEnvironment{question}{0{0}}{\%
262 \ifthenelse{#1>0}{\setcounter{question}{#1-1}}{\relax}%
263 \tma@stepcounter{question}%
```

```
264 \tma@bookmark{Question \thequestion}%
    {question\thequestion}%
265
\label{large} $$ \mathbf{0.3em}_{r}\simeq \mathbb{C}_{r} \
267 }{%
268 \par \vspace{3em}%
269 }
270
271 \NewDocumentCommand{\qpart}{0{0}}{%
   \left\{\frac{\#1-1}{\left(\frac{\#1-1}{\pi}\right)}\right\}
   \tma@stepcounter{qpart}%
   \tma@bookmark[1]{\thequestion.\theqpart}%
274
275
    {qpart.\thequestion.\theqpart}%
276
   \makebox[Opt][r]{\large{(\theqpart)\hspace{1.5em} }}%
277
278 }
279
280 \NewDocumentCommand{\qsubpart}{0{0}}{%
281 \ifthenelse{#1>0}{\setcounter{qsubpart}{#1-1}}{\relax}%
282 \tma@stepcounter{qsubpart}%
283 \tma@bookmark[2]{\thequestion.\theqpart.\theqsubpart}%
    {qsubpart.\thequestion.\theqpart.\theqsubpart}%
285 \ifthenelse{\value{qsubpart}>1}%
286 {\par}{}%
287 \hspace{-2em}\makebox[2em][1]{\large{(\theqsubpart)}}%
288 }
289
291 %% Mathematical Commands
294 %% Differential Operators
295 \NewDocumentCommand{\dd}{}\ensuremath{\mathop{}\!\mathrm{d}}}
296 \NewDocumentCommand{\e}{}{\ensuremath{\mathrm{e}}}}
297 \NewDocumentCommand{\ii}{}{\ensuremath{\mathrm{i}}}}
298
299 %% Number Sets
300 \NewDocumentCommand{\N}{}{\command{\N}}}
301 \ensuremath{\mathbb{Z}}}
302 \ensuremath{\ensuremath{Q}}}
303 \ensuremath{\mathbb{R}}
304 \NewDocumentCommand{\Complex}{}{%
305 \ensuremath{\mathbb{C}}} % Changed from \C to \Complex
306 \NewDocumentCommand{\Rr}{}\ensuremath{\mathcal{R}}}
307
308 %% Vector Notation
309 \NewDocumentCommand{\vect}{m}{%
310 \ensuremath{\overrightarrow{#1}}} % Changed from \vec to \vect
311 \ensuremath{\textbf{#1}}
312
313 %% Superscript Notations
314 \NewDocumentCommand{\st}{}{\textsuperscript{st}}}
315 \NewDocumentCommand{\nd}{}{\textsuperscript{nd}}}
316 \NewDocumentCommand{\rd}{}{\textsuperscript{rd}}
317 \NewDocumentCommand{\nth}{}{\textsuperscript{th}}
318
319 % Additional Symbols
322 %% Combinatorial Notations
323 \ensuremath{{}^{\#1}C_{\#2}}
324 \mbox{NewDocumentCommand{\perm}{mm}{\cmsuremath{{}^{#1}P_{#2}}}
```

```
325
326 %% Mathematical Operators
327 \DeclareMathOperator{re}{Re}
328 \DeclareMathOperator{\lim}{Im}
329 \DeclareMathOperator{\Log}{Log}
330 \DeclareMathOperator{\Arg}{Arg}
331 \DeclareMathOperator{\Wnd}{Wnd}
332 \DeclareMathOperator{\Res}{Res}
333 \DeclareMathOperator{\Ker}{Ker}
334 \DeclareMathOperator{\Orb}{Orb}
335 \DeclareMathOperator{\Stab}{Stab}
336 \DeclareMathOperator{\Fix}{Fix}
338 %% Derivatives
339 \NewDocumentCommand{\deriv}{mm}{%
340 \frac{\mathrm{d}#1}{\mathrm{d}#2}}
341 \NewDocumentCommand{\pderiv}{mm}{%
342 \frac{\partial #1}{\partial #2}}
343 \NewDocumentCommand{\psderiv}{mmm}{%
344 \frac{\partial^2 #1}{\partial #2 \partial #3}}
346 % Legacy Definitions
347 \iftma@legacy
348 \% Redefine \vec to old definition
349 \verb|\RenewDocumentCommand{\vec}{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\column{m}{\colu
350 % Redefine \C to old definition
351 \ProvideDocumentCommand{\C}{}{\ensuremath{\mathbb{C}}}}
352 \RenewDocumentCommand{\C}{}\
356 %% Theorem Environment
359 \newtheorem{lemma}{Lemma}
360 \newtheorem{theorem}{Theorem}
361 % Define \blacksmiley without loading wasysym
362 \ProvideDocumentCommand{\blacksmiley}{}{%
363 \ensuremath{\unicode{263B}}} % Unicode for blacksmiley emoji
364 \RenewDocumentCommand{\qedsymbol}{}{\blacksmiley}
367 %% Miscellaneous Settings
369
370 \RenewDocumentCommand{\thefootnote}{}{\fnsymbol{footnote}}
371 \numberwithin{equation}{question}
372 \setlength{\parindent}{0pt}
373 \setlength{\parskip}{2ex plus 0.3ex minus 0.2ex}
376 %% Header and Footer Settings
379 \pagestyle{fancy}
380 \fancyhf{} % Clear all headers and footers
381 \fancyhead[L]{\textrm{\name\ \pin}}
382 \fancyhead[C] {\textrm{\course\ TMA-\tma}}
383 \fancyhead[R]{\textrm{Page \thepage\ of \tma@pageref{LastPage}}}
384 \RenewDocumentCommand{\headrulewidth}{}{Opt} % Remove header rule
385
```

Index

fancyhead=

fancyhf=

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

```
\subitem *+
                                                                                 Fix=
                                                                                                \subitem *+\Fix+, \hdclindex{360}{code}{336}
                                   381,
                                                                               fnsymbol =
                                                                                                        \subitem *+\fnsymbol+, \hdclindex{394}{code}{370}
                                                                                 frac=
                                                                                                \subitem *+\frac+, \hdclindex\{364\}\{code\}\{340\}, \\\\\342,
                \subitem *+\alph+, \hdclindex{164}{code}{14044206,
alph=
           208
                   \subitem *+\arabic+, \hdclindex{146}\family feede}\family 
arabic=
               \subitem *+\Arg+, \hdclindex{354}{code}{330}29, 30, 32, 33, 34, 35, 36, 38,
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                           \subitem *+\blacksmiley+, \hdclhinadra(685){{hede}{3651}hiten *+\headrulewidth+, \hdclindex{408}{0
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           351,
                                 \subitem *+\cleanlookdateonifth\ndksi:ndex{\subjritemmlej+(830thenelse+, \hdclindex{286}{code}{26}
cleanlookdateon=
                 \subitem *+\comb+, \hdclindex{347}{code}{32331,
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                      \subitem *+\Complex+, \hdclindex{\$28}\fcode}{\$64\pi$6\text{m} legacy+, \hdclindex{155}{code}{\131},\frac{191}{191},
Complex=
                   \subitem *+\course+, \hdclindex{6}{usage}{347,40,
course=
                                                                                                    \subitem roman+, \hdclindex{152}{code}{128}, \frac{181}{181}
          56.
                                         222.
                                                                        382 roman=
                       \subitem *+\crefname+, \hdclindex{260}{code}{236}
crefname=
                               \subitem *+\CurrentOption+, \haddrindex{193}\subiteDefn 693ecleveref+, \hdclindex{153}{code}{129}
CurrentOption=
                                                                                            229.
                                                                                                                                                         255
                \subitem *+\date+, \hdclindex{77}{code}d5dbookmark=
                                                                                                                   \subitem usepdfbookmark+, \hdclindex{154}{6
              \subitem *+\\dd+, \\hdclindex\{319\}\{code\}\{295\} 212,
                                          \subitem *+\DeclareMathi0perat\crub,it\ndcd=\ndicindicix,{3\ndcdicindicix}(\frac{3271},\frac{2271},\frac{2271}},
           329, 330, 331, 332, 333, 334, 335, 336 im=
                                                                                              \subitem *+\DeclareOption+, \hdclindex{172}{code}{148}, 152,
DeclareOption=
           156.
                               160.
                                                    164,
                                                                       168 Ker=
                                                                                                \subitem *+\Ker+, \hdclindex{357}{code}{333}
deriv=
                 \subitem *+\deriv+, \hdclindex{363}{code}{339}
                                                                                                  large=
           \subitem *+\else+, \hdclindex{202}{code}ff=78}, \subitem *+\Log+, \hdclindex{353}{code}{329}
else =
                                          193,
                       \subitem *+\endinput+, \hdclindex{444}{\code}{396}\bitem *+\makebox+, \hdclindex{290}{code}{266},
                           \subitem *+\ensuremath+, \hdclindex{329}{code}{295},296,
                                                                                                           \subitem *+\marginnote+, \hdclindex{129}{code}{
           297, 300, 301, 302, 303, 305, 306, 310,
                                                                                marginnote=
           311, 320, 323, 324, 349, 351, 352, 363 marginnotes=
                                                                                                            \subitem *+\marginnotes+, \hdclindex{130}{code
                                \subitem *+\ExplSyntaxOff+, \marginpaex{78}{\subsitem4}*+\marginpar+, \hdclindex{129}{code}{10
ExplSyntaxOff =
                               \subitem *+\ExplSyntaxOn+, \neelindex{49}\coole9\mathbb+, \hdclindex{324}{code}{300},30
ExplSyntaxOn=
                                                                                            302.
                                                                                                           303,
                                                                                                                          305,
                                                                                                                                          351,
                                                                                                                                                         352
```

\subitem *+\fancyhead+, \hdclindex{4405}}{code}\\\$88ti}t,e***** hathcal+, \hdclindex{330}{code}{306}

 $\label{lem:subitem:s$

\subitem *+\mathop+, \hdclindex{319}{code}{295}

\subitem *+\mycourse+, \hdclindex{72}{code}{48}

mathop=

\subitem *+\fi+, \hdclindex{204}{code}{180},18397, 190, 195, 210, 226, 238, 246, 259, 353 mycourse=

```
\subitem *+\myname+, \hdclindex{68}@cquideP@Akage=
                                                                                                                                                                                                                                                                \subitem *+\RequirePackage+, \hdclindex{45}
mvname=
                                            \star \star \ subitem \star \star \ hdclindex{74}{code}{50}, 71, 72, 73, 74, 75, 76, 77,
mypin=
                                               \subitem *+\mytma+, \hdclindex{70}{code}{\( \frac{46}{6} \)} \( \frac{79}{6}, \quad 81, \quad 82, \quad 225, \quad 233, \quad 234
mytma=
                                                                                                                                                                                                                               \subitem *+\Res+, \hdclindex{356}{code}{332}
                                                                                                                                                                                           Res =
                                                                                                                                                                                                                                        \subitem *+\roman+, \hdclindex\{165\}\{code\}\{141\}, \frac{205}{5},
N=
                             \star \star \ \hdclindex{324}{code}{300}man=
                                         \subitem *+\name+, \hdclindex{2}{usage}{1},200
name=
                                                                                                                                                                      381 Rr=
                                                                                                                                                                                                                           \subitem *+\Rr+, \hdclindex{330}{code}{306}
                         57,
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