

# The latex-lab-mathpkg code\*

L<sup>A</sup>T<sub>E</sub>X Project

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Abstract

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## 1 Introduction

This file implements adaptations to various math packages needed for the tagging project.

## 2 The Implementation

1 `<@=math>`

2 `<kernel>`

### 2.1 File declaration

3 `\ProvidesFile{latex-lab-mathpkg.ltx}`  
4 `[2025-05-10 v0.1b mathpkg adaptations]`

### 2.2 breqn

5 `\AddToHook{package/breqn/after}{`  
6 `\RegisterMathEnvironment{dmath}`  
7 `\RegisterMathEnvironment{dgroup*}`  
8 `\AddToHook{env/dmath/begin}{\tagpdfparaOff}`

---

\*

```

9   \AddToHook{env/dgroup*/begin}{\tagpdfparaOff}
10  }

```

## 2.3 cases

Force loading of amsmath before cases.

```

11 \AddToHook {package/cases/before}{\RequirePackage{amsmath}}
12 \AddToHook{package/cases/after}{
13   \RegisterMathEnvironment{subnumcases}
14 }

```

## 2.4 bm

Similar to the amsbsy code in latex-lab-amsmath for `\pmb` we need to mark up copies as artifact:

```

15 \ExplSyntaxOn
16 \AddToHook{package/bm/after}
17 {
18   \def\bm@pmb@@#1#2#3{ {%
19     \hbox_set:Nn\l__math_tmpa_box{${m@th#1#3$}%
20     \dimen@#2\wd\tw@
21     \rlap{\box_use:N\l__math_tmpa_box}%
22     \tag_mc_end:\tag_mc_begin:n{artifact}
23     \tag_mc_reset_box:N\l__math_tmpa_box
24     \kern\dimen@
25     \raise1.5\dimen@\rlap{\box_use:N\l__math_tmpa_box}%
26     \kern\dimen@
27     \box_use_drop:N\l__math_tmpa_box
28     \tag_mc_end:\tag_mc_begin:n{}}%
29   }}
30 }
31 \ExplSyntaxOff
32 </kernel>

```

## 2.5 Wrapper files for testphase key

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