

# Test of the **overarrows** package predefined commands

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## 1 **\vv**

`\TestOverArrow*{\vv}`

### Test of **\vv** and **\vv\*** macros

#### **\vv** for different math styles

<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\vec{v}$	$\vec{v}$	$\vec{v}$	$\vec{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$
$\overrightarrow{\text{my long vector}}$	$\overrightarrow{\text{my long vector}}$	$\overrightarrow{\text{my long vector}}$	$\overrightarrow{\text{my long vector}}$

#### **\vv** kerning

$$\vec{t} \vec{u} \vec{v} \quad \vec{i}_0 \quad \vec{v} = \vec{v}_x + \vec{v}_y + \vec{v}_z = v_x \vec{i} + v_y \vec{j} + v_z \vec{k}$$

#### **\vv\*** kerning

$$\vec{t} \vec{u} \vec{v} \quad \vec{i}_0 \quad \vec{v} = \vec{v}_x + \vec{v}_y + \vec{v}_z = v_x \vec{i} + v_y \vec{j} + v_z \vec{k}$$

## 2 `\overrightarrow`

<code>\TestOverArrow{\overrightarrow}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$	$\overrightarrow{\text{grad}}$
$\overrightarrow{\text{my long vector}}$	$\overrightarrow{\text{my long vector}}$	$\overrightarrow{\text{my long vector}}$	$\overrightarrow{\text{my long vector}}$

## 3 `\underrightarrow`

<code>\TestOverArrow{\underrightarrow}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\underrightarrow{v}$	$\underrightarrow{v}$	$\underrightarrow{v}$	$\underrightarrow{v}$
$\underrightarrow{AB}$	$\underrightarrow{AB}$	$\underrightarrow{AB}$	$\underrightarrow{AB}$
$\underrightarrow{\text{grad}}$	$\underrightarrow{\text{grad}}$	$\underrightarrow{\text{grad}}$	$\underrightarrow{\text{grad}}$
$\underrightarrow{\text{my long vector}}$	$\underrightarrow{\text{my long vector}}$	$\underrightarrow{\text{my long vector}}$	$\underrightarrow{\text{my long vector}}$

## 4 `\overleftarrow`

<code>\TestOverArrow{\overleftarrow}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\overleftarrow{v}$	$\overleftarrow{v}$	$\overleftarrow{v}$	$\overleftarrow{v}$
$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\overleftarrow{AB}$
$\overleftarrow{\text{grad}}$	$\overleftarrow{\text{grad}}$	$\overleftarrow{\text{grad}}$	$\overleftarrow{\text{grad}}$
$\overleftarrow{\text{my long vector}}$	$\overleftarrow{\text{my long vector}}$	$\overleftarrow{\text{my long vector}}$	$\overleftarrow{\text{my long vector}}$

## 5 `\underleftarrow`

<code>\TestOverArrow{\underleftarrow}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\underleftarrow{v}$	$\underleftarrow{v}$	$\underleftarrow{v}$	$\underleftarrow{v}$
$\underleftarrow{AB}$	$\underleftarrow{AB}$	$\underleftarrow{AB}$	$\underleftarrow{AB}$
$\underleftarrow{\text{grad}}$	$\underleftarrow{\text{grad}}$	$\underleftarrow{\text{grad}}$	$\underleftarrow{\text{grad}}$
$\underleftarrow{\text{my long vector}}$	$\underleftarrow{\text{my long vector}}$	$\underleftarrow{\text{my long vector}}$	$\underleftarrow{\text{my long vector}}$

## 6 `\overleftrightharpoonrightarrow`

<code>\TestOverArrow{\overleftrightharpoonrightarrow}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\overleftrightharpoonrightarrow{v}$	$\overleftrightharpoonrightarrow{v}$	$\overleftrightharpoonrightarrow{v}$	$\overleftrightharpoonrightarrow{v}$
$\overleftrightharpoonrightarrow{AB}$	$\overleftrightharpoonrightarrow{AB}$	$\overleftrightharpoonrightarrow{AB}$	$\overleftrightharpoonrightarrow{AB}$
$\overleftrightharpoonrightarrow{\text{grad}}$	$\overleftrightharpoonrightarrow{\text{grad}}$	$\overleftrightharpoonrightarrow{\text{grad}}$	$\overleftrightharpoonrightarrow{\text{grad}}$
$\overleftrightharpoonrightarrow{\text{my long vector}}$	$\overleftrightharpoonrightarrow{\text{my long vector}}$	$\overleftrightharpoonrightarrow{\text{my long vector}}$	$\overleftrightharpoonrightarrow{\text{my long vector}}$

## 7 `\underleftrightharpoonarrow`

<code>\TestOverArrow{\underleftrightharpoonarrow}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\underleftrightharpoonarrow v$	$\underleftrightharpoonarrow v$	$\underleftrightharpoonarrow v$	$\underleftrightharpoonarrow v$
$\underleftrightharpoonoverrightarrow{AB}$	$\underleftrightharpoonoverrightarrow{AB}$	$\underleftrightharpoonoverrightarrow{AB}$	$\underleftrightharpoonoverrightarrow{AB}$
$\underleftrightharpoonoverrightarrow{\text{grad}}$	$\underleftrightharpoonoverrightarrow{\text{grad}}$	$\underleftrightharpoonoverrightarrow{\text{grad}}$	$\underleftrightharpoonoverrightarrow{\text{grad}}$
$\underleftrightharpoonoverrightarrow{\text{my long vector}}$	$\underleftrightharpoonoverrightarrow{\text{my long vector}}$	$\underleftrightharpoonoverrightarrow{\text{my long vector}}$	$\underleftrightharpoonoverrightarrow{\text{my long vector}}$

## 8 `\overrightharpoonup`

<code>\TestOverArrow{\overrightharpoonup}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{\overrightarrow{AB}}$	$\overrightarrow{\overrightarrow{AB}}$	$\overrightarrow{\overrightarrow{AB}}$	$\overrightarrow{\overrightarrow{AB}}$
$\overrightarrow{\overrightarrow{\text{grad}}}$	$\overrightarrow{\overrightarrow{\text{grad}}}$	$\overrightarrow{\overrightarrow{\text{grad}}}$	$\overrightarrow{\overrightarrow{\text{grad}}}$
$\overrightarrow{\overrightarrow{\text{my long vector}}}$	$\overrightarrow{\overrightarrow{\text{my long vector}}}$	$\overrightarrow{\overrightarrow{\text{my long vector}}}$	$\overrightarrow{\overrightarrow{\text{my long vector}}}$

## 9 `\underrightharpoonup`

<code>\TestOverArrow{\underrightharpoonup}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\underset{\curvearrowright}{v}$	$\underset{\curvearrowright}{v}$	$\underset{\curvearrowright}{v}$	$\underset{\curvearrowright}{v}$
$\underset{\curvearrowright}{AB}$	$\underset{\curvearrowright}{AB}$	$\underset{\curvearrowright}{AB}$	$\underset{\curvearrowright}{AB}$
$\underset{\curvearrowright}{\mathrm{grad}}$	$\underset{\curvearrowright}{\mathrm{grad}}$	$\underset{\curvearrowright}{\mathrm{grad}}$	$\underset{\curvearrowright}{\mathrm{grad}}$
$\underset{\curvearrowright}{\textit{my long vector}}$	$\underset{\curvearrowright}{\textit{my long vector}}$	$\underset{\curvearrowright}{\textit{my long vector}}$	$\underset{\curvearrowright}{\textit{my long vector}}$

## 10 `\overrightharpoonowdown`

<code>\TestOverArrow{\overrightharpoonowdown}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\overrightarrow{\curvearrowleft} v$	$\overrightarrow{\curvearrowleft} v$	$\overrightarrow{\curvearrowleft} v$	$\overrightarrow{\curvearrowleft} v$
$\overrightarrow{\curvearrowleft} AB$	$\overrightarrow{\curvearrowleft} AB$	$\overrightarrow{\curvearrowleft} AB$	$\overrightarrow{\curvearrowleft} AB$
$\overrightarrow{\curvearrowleft} \mathrm{grad}$	$\overrightarrow{\curvearrowleft} \mathrm{grad}$	$\overrightarrow{\curvearrowleft} \mathrm{grad}$	$\overrightarrow{\curvearrowleft} \mathrm{grad}$
$\overrightarrow{\curvearrowleft} \textit{my long vector}$	$\overrightarrow{\curvearrowleft} \textit{my long vector}$	$\overrightarrow{\curvearrowleft} \textit{my long vector}$	$\overrightarrow{\curvearrowleft} \textit{my long vector}$

## 11 `\underrightharpoonowdown`

<code>\TestOverArrow{\underrightharpoonowdown}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\underset{\rightarrow}{v}$	$\underset{\rightarrow}{v}$	$\underset{\rightarrow}{v}$	$\underset{\rightarrow}{v}$
$\underset{\rightarrow}{AB}$	$\underset{\rightarrow}{AB}$	$\underset{\rightarrow}{AB}$	$\underset{\rightarrow}{AB}$
$\underset{\rightarrow}{\text{grad}}$	$\underset{\rightarrow}{\text{grad}}$	$\underset{\rightarrow}{\text{grad}}$	$\underset{\rightarrow}{\text{grad}}$
$\underset{\rightarrow}{\text{my long vector}}$	$\underset{\rightarrow}{\text{my long vector}}$	$\underset{\rightarrow}{\text{my long vector}}$	$\underset{\rightarrow}{\text{my long vector}}$

## 12 `\overleftharpoonowup`

<code>\TestOverArrow{\overleftharpoonowup}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\overleftarrow{v}$	$\overleftarrow{v}$	$\overleftarrow{v}$	$\overleftarrow{v}$
$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\overleftarrow{AB}$
$\overleftarrow{\text{grad}}$	$\overleftarrow{\text{grad}}$	$\overleftarrow{\text{grad}}$	$\overleftarrow{\text{grad}}$
$\overleftarrow{\text{my long vector}}$	$\overleftarrow{\text{my long vector}}$	$\overleftarrow{\text{my long vector}}$	$\overleftarrow{\text{my long vector}}$

## 13 `\underleftharpoonup`

<code>\TestOverArrow{\underleftharpoonup}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\underleftharpoonup v$	$\underleftharpoonup v$	$\underleftharpoonup v$	$\underleftharpoonup v$
$\underleftharpoonup AB$	$\underleftharpoonup AB$	$\underleftharpoonup AB$	$\underleftharpoonup AB$
$\underleftharpoonup \text{grad}$	$\underleftharpoonup \text{grad}$	$\underleftharpoonup \text{grad}$	$\underleftharpoonup \text{grad}$
$\underleftharpoonup \text{my long vector}$	$\underleftharpoonup \text{my long vector}$	$\underleftharpoonup \text{my long vector}$	$\underleftharpoonup \text{my long vector}$

## 14 `\overleftharpoondown`

<code>\TestOverArrow{\overleftharpoondown}</code>			
<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\overleftharpoondown v$	$\overleftharpoondown v$	$\overleftharpoondown v$	$\overleftharpoondown v$
$\overleftharpoondown AB$	$\overleftharpoondown AB$	$\overleftharpoondown AB$	$\overleftharpoondown AB$
$\overleftharpoondown \text{grad}$	$\overleftharpoondown \text{grad}$	$\overleftharpoondown \text{grad}$	$\overleftharpoondown \text{grad}$
$\overleftharpoondown \text{my long vector}$	$\overleftharpoondown \text{my long vector}$	$\overleftharpoondown \text{my long vector}$	$\overleftharpoondown \text{my long vector}$





## 17 `\underbar`

`\TestOverArrow*{\underbar}`

### Test of `\underbar` and `\underbar*` macros

#### `\underbar` for different math styles

<code>\displaystyle</code>	<code>\textstyle</code>	<code>\scriptstyle</code>	<code>\scriptscriptstyle</code>
$\underline{v}$	$\underline{v}$	$\underline{v}$	$\underline{v}$
$\underline{AB}$	$\underline{AB}$	$\underline{AB}$	$\underline{AB}$
$\underline{\text{grad}}$	$\underline{\text{grad}}$	$\underline{\text{grad}}$	$\underline{\text{grad}}$
$\underline{\text{my long vector}}$	$\underline{\text{my long vector}}$	$\underline{\text{my long vector}}$	$\underline{\text{my long vector}}$

#### `\underbar` kerning

$$\underline{t} \underline{u} \underline{v} \quad \underline{v} \, 0 \quad \underline{v} = \underline{v}_x + \underline{v}_y + \underline{v}_z = v_x \underline{i} + v_y \underline{j} + v_z \underline{k}$$

#### `\underbar*` kerning

$$\underline{t} \underline{u} \underline{v} \quad \underline{v} \, 0 \quad \underline{v} = \underline{v}_x + \underline{v}_y + \underline{v}_z = v_x \underline{i} + v_y \underline{j} + v_z \underline{k}$$