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

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#### 

Te	est of \vv and	l \vv* macr	ros
	\vv for differen	nt math styles	3
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\operatorname{grad}}$	$\overrightarrow{\operatorname{grad}}$	$\overrightarrow{\operatorname{grad}}$	$\overrightarrow{\operatorname{grad}}$
$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my \ long \ vector}$	$\overrightarrow{my}$ long vector	$\overrightarrow{my}\ long\ vector$
	\vv ke	erning	
$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{v}}}$ $\overrightarrow{t}_0$	$\overrightarrow{v} = \overrightarrow{v}_x + \overrightarrow{v}_x$	$\vec{v}_y + \vec{v}_z = v_x \vec{\imath}$	$+v_{y}\overrightarrow{\jmath}+v_{z}\overrightarrow{k}$
	\vv* k	erning	
$\overrightarrow{t}_{\overrightarrow{u}_{\overrightarrow{x}}}$ $\overrightarrow{t}_{0}$	$\vec{v} = \vec{v}_x + \vec{v}$	$\vec{v}_y + \vec{v}_z = v_x \vec{\imath} + \vec{v}_z$	$-v_{u}\overrightarrow{j}+v_{z}\overrightarrow{k}$

#### \overrightarrow

\	overrightarrow}		
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\xrightarrow{\text{grad}}$	$\overrightarrow{\operatorname{grad}}$	$\overrightarrow{\operatorname{grad}}$	$\overrightarrow{\operatorname{grad}}$
$\overrightarrow{my \ long \ vector}$	$\overrightarrow{my} \ long \ vector$	$\overrightarrow{my\ long\ vector}$	$\overrightarrow{my}$ long vector

#### \underrightarrow

\	underrightarrow}		
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\xrightarrow{v}$	$\xrightarrow{\upsilon}$	$\xrightarrow{v}$	$\stackrel{v}{ ightarrow}$
$\xrightarrow{AB}$	$\stackrel{AB}{\Longrightarrow}$	$\overset{AB}{\longrightarrow}$	$\overset{AB}{\longrightarrow}$
$\overset{\operatorname{grad}}{\longrightarrow}$	$\overset{\operatorname{grad}}{\longrightarrow}$	$\overset{\operatorname{grad}}{\longrightarrow}$	$\overset{\operatorname{grad}}{\longrightarrow}$
$\xrightarrow{my\ long\ vector}$	$\xrightarrow{my\ long\ vector}$	$\xrightarrow{my\ long\ vector}$	$\xrightarrow{my\ long\ vector}$

#### \overleftarrow

\	\TestOverArrow{\overleftarrow}				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle		
$\overline{\overleftarrow{v}}$	$\leftarrow$	$\leftarrow$	₹		
$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\overleftarrow{AB}$		
$\stackrel{\longleftarrow}{\operatorname{grad}}$	$\overset{\longleftarrow}{\operatorname{grad}}$	$\overset{\longleftarrow}{\operatorname{grad}}$	<del>←</del> grad		
$\stackrel{\longleftarrow}{my\ long\ vector}$	$\stackrel{\longleftarrow}{my\ long\ vector}$	$\stackrel{\longleftarrow}{my\ long\ vector}$	$\stackrel{\longleftarrow}{my}\ long\ vector$		

#### 5 \underleftarrow

\	\underleftarrow}		
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\leftarrow v$	$\stackrel{v}{\leftarrow}$	$\stackrel{v}{\leftarrow}$	$\overset{v}{\leftarrow}$
AB	AB	$\overset{AB}{\longleftarrow}$	$\overset{AB}{\longleftarrow}$
$\overset{\operatorname{grad}}{\longleftarrow}$	$\stackrel{\operatorname{grad}}{\longleftarrow}$	$\overset{\operatorname{grad}}{\longleftarrow}$	$\overset{\operatorname{grad}}{\longleftarrow}$
my long vector	$\underset{\longleftarrow}{my\ long\ vector}$	$\underset{\longleftarrow}{my\ long\ vector}$	$my\ long\ vector$

### $6 \quad \verb|\| \text{overleftrightarrow} \\$

\	\TestOverArrow{\overleftrightarrow}				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle		
$\overrightarrow{v}$	$\overleftrightarrow{v}$	$\overleftrightarrow{v}$	$\overleftrightarrow{v}$		
$\overleftrightarrow{AB}$	$\overleftrightarrow{AB}$	$\overleftrightarrow{AB}$	$\overleftarrow{AB}$		
$\stackrel{\longleftrightarrow}{\operatorname{grad}}$	$\overrightarrow{\operatorname{grad}}$	$\stackrel{\longleftrightarrow}{\operatorname{grad}}$	<del>⟨</del> →→ grad		
$\stackrel{\longleftarrow}{my\ long\ vector}$	$\stackrel{\longleftarrow}{my\ long\ vector}$	$\stackrel{\longleftarrow}{my\ long\ vector}$	$\stackrel{\longleftrightarrow}{my\ long\ vector}$		

### 7 \underleftrightarrow

\	\TestOverArrow{\underleftrightarrow}				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle		
$\stackrel{\mathcal{U}}{\longleftrightarrow}$	$\stackrel{\mathcal{U}}{\longleftrightarrow}$	$\stackrel{v}{\longleftrightarrow}$	$\overset{v}{\longleftrightarrow}$		
$\stackrel{AB}{\Longleftrightarrow}$	$\overset{AB}{\longleftrightarrow}$	$\overset{AB}{\longleftrightarrow}$	$\overset{AB}{\longleftrightarrow}$		
$\overset{\operatorname{grad}}{\longleftrightarrow}$	$\overset{\operatorname{grad}}{\longleftrightarrow}$	$\overset{\operatorname{grad}}{\longleftrightarrow}$	$\overset{\operatorname{grad}}{\longleftrightarrow}$		
$\xrightarrow{my\ long\ vector}$	$\xrightarrow{my\ long\ vector}$	$\overset{my\ long\ vector}{\longleftrightarrow}$	$\overset{my\ long\ vector}{\longleftrightarrow}$		

### 8 \overrightharpoonup

\TestOverArrow{\overrightharpoonup}				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle	
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	
$\overrightarrow{\operatorname{grad}}$	$\stackrel{-}{\operatorname{grad}}$	$\overrightarrow{\operatorname{grad}}$	$\overrightarrow{\operatorname{grad}}$	
my long vector	$\overrightarrow{my \ long \ vector}$	my long vector	my long vector	

### 9 \underrightharpoonup

\	\TestOverArrow{\underrightharpoonup}				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle		
$\underline{v}_{\downarrow}$	$\underline{v}_{\backprime}$	$\underline{v}_{\backprime}$	$\underline{v}$		
$\underline{AB}$	$\underline{AB}$	AB	$\overrightarrow{AB}$		
$\underline{\underline{\operatorname{grad}}}$	$\underline{\underline{\operatorname{grad}}}$	$\underline{\underline{\mathrm{grad}}}$	grad		
my long vector	my long vector	my long vector	my long vector		

# $10 \quad \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ \ }} \texttt{\ \ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ }} \texttt{\ \ \ \ \ \ \ }} \texttt{\ \ \ \ \ \ }} \texttt{\ \ \ \ \ }} \texttt{\ \ \ \ \ \ }} \texttt{\ \ \ \ \ \ }} \texttt{\ \ \ \ \ \ }} \texttt$

\	\TestOverArrow{\overrightharpoondown}				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle		
$\overline{v}'$	$\overline{v}'$	$\overline{v'}$	$\overline{v}'$		
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$		
$\overline{\operatorname{grad}}$	$\frac{\overline{}}{\mathrm{grad}}$	$\overline{\mathrm{grad}}$	$_{ m grad}$		
my long vector	my long vector	my long vector	my long vector		

### \underrightharpoondown

\TestOverArrow{\underrightharpoondown}				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle	
$\underline{v}$	$\underline{v}$	$\frac{v}{}$	$\frac{v}{}$	
AB	AB	AB	$\frac{AB}{}$	
$\frac{\operatorname{grad}}{\mathcal{I}}$	$\frac{\operatorname{grad}}{}$	$\frac{\operatorname{grad}}{}$	grad	
my long vector	my long vector	my long vector	my long vector	

# \overleftharpoonup

\TestOverArrow{\overleftharpoonup}				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle	
$\overline{v}$	$\stackrel{\checkmark}{v}$	$\overline{v}$	<del>v</del>	
$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\stackrel{\longleftarrow}{AB}$	
grad	∠ grad	grad	grad	
my long vector	my long vector	my long vector	my long vector	

### \underleftharpoonup

\TestOverArrow{\underleftharpoonup}			
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
<u>v</u>	<u>~v</u>	<u>,v</u>	<u>v</u>
<u>AB</u>	AB	AB	AB
$\underline{\operatorname{grad}}$	$\operatorname{grad}$	grad	grad
my long vector	my long vector	my long vector	my long vector

# $14 \quad \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ } \texttt{\ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ \ } \texttt{\ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ }} \texttt{\ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ }} \texttt{\ \ \ \ } \texttt{\ \ \ }} \texttt{\ \ \ }} \texttt{\ \ \ \ }} \texttt{\ \ \ \ \ }} \texttt{\ \ \ \ }} \texttt{\ \ \ \ \ }} \texttt{\ \ \ \ \ }} \texttt{\ \ \ \ }} \texttt{\ \ \ \ }} \texttt{\ \ \ \ \ }} \texttt{\ \ \ \ \ }} \texttt{\ \ \ \ }}$

\TestOverArrow{\overleftharpoondown}			
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overline{v}$	$\overline{v}$	$\overline{v}$	$\overline{v}$
$\overline{AB}$	$\overline{AB}$	$\overline{AB}$	$\overline{AB}$
$\overline{\operatorname{grad}}$	grad	$\overline{\operatorname{grad}}$	$\overline{\mathrm{grad}}$
my long vector	my long vector	my long vector	my long vector

## $15 \quad \verb|\underleftharpoondown|$

\TestOverArrow{\underleftharpoondown}			
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overline{v}$	$\underline{v}$	$\frac{v}{}$	<u>v</u>
AB	AB	$\stackrel{AB}{\longleftarrow}$	$\stackrel{AB}{\longleftarrow}$
$\operatorname{grad}$	$\operatorname{grad}$	$\stackrel{\operatorname{grad}}{\longleftarrow}$	grad
my long vector	my long vector	my long vector	my long vector

#### \overbar

\TestOverArrow*{\overbar}					
Test of \overbar and \overbar* macros					
\ov	\overbar for different math styles				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle		
$\overline{v}$	$\overline{v}$	$\overline{v}$	$\overline{v}$		
$\overline{AB}$	$\overline{AB}$	$\overline{AB}$	$\overline{AB}$		
$\overline{\text{grad}}$	$\overline{\operatorname{grad}}$	$\overline{\text{grad}}$	$\overline{ ext{grad}}$		
$\overline{my\ long\ vector}$	my long vector	my long vector	my long vector		
	\overbar kerning				
$\overline{t}_{\overline{u}_{\overline{v}}} \qquad \overline{\iota}_{0} \qquad \overline{v} = \overline{v}_{x} + \overline{v}_{y} + \overline{v}_{z} = v_{x}\overline{\imath}  + v_{y}\overline{\jmath}  + v_{z}\overline{k}$					
\overbar* kerning					
$\overline{t}_{\overline{u}_{\overline{v}}}$ $\overline{\imath}_0$ $\overline{v} = \overline{v}_x + \overline{v}_y + \overline{v}_z = v_x \overline{\imath} + v_y \overline{\jmath} + v_z \overline{k}$					

#### 17 \underbar

\TestOverArrow*{\ur	\TestOverArrow*{\underbar}				
Test of \u	Test of \underbar and \underbar* macros \underbar for different math styles				
\uno					
\displaystyle \textstyle \scriptstyle \scriptscriptstyle					
$\underline{v}$	$\underline{v}$	$\underline{v}$	<u>v</u>		
<u>AB</u>	$\underline{AB}$	$\underline{AB}$	<u>AB</u>		
$\underline{\operatorname{grad}}$	$\underline{\underline{\operatorname{grad}}}$	$\underline{\operatorname{grad}}$	$_{ m grad}$		
my long vector	my long vector	my long vector	my long vector		
	\underbar kerning				
$\underline{t}_{\underline{u}_{\underline{v}}}$ $\underline{v} = \underline{v}_x + \underline{v}_y + \underline{v}_z = v_x \underline{\imath} + v_y \underline{\jmath} + v_z \underline{k}$					
\underbar* kerning					
$\underline{t}_{\underline{u}_{\underline{v}}}$ $\underline{v} = \underline{v}_x + \underline{v}_y + \underline{v}_z = v_x \underline{\imath} + v_y \underline{\jmath} + v_z \underline{k}$					