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

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#### 

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

#### \overrightarrow

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

#### \underrightarrow

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

#### 4 \overleftarrow

o	verleftarrow}		
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overline{\overleftarrow{v}}$	$\leftarrow$	$\overleftarrow{v}$	₹υ
$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\overleftarrow{AB}$
$\overset{\longleftarrow}{\operatorname{grad}}$	$\overset{\longleftarrow}{\operatorname{grad}}$	$\stackrel{\longleftarrow}{\operatorname{grad}}$	$\overset{\longleftarrow}{\operatorname{grad}}$
← → → → → → → → → → → → → → → → → → → →	$\stackrel{\longleftarrow}{my\ long\ vector}$	$\stackrel{\longleftarrow}{my\ long\ vector}$	$\stackrel{\longleftarrow}{my\ long\ vector}$

#### 5 \underleftarrow

u	\TestOverArrow{underleftarrow}				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle		
$\stackrel{\mathcal{U}}{\longleftarrow}$	$\stackrel{v}{\leftarrow}$	$\stackrel{v}{\leftarrow}$	$\stackrel{v}{\leftarrow}$		
AB	AB	$\stackrel{AB}{\longleftarrow}$	$\overset{AB}{\longleftarrow}$		
$\stackrel{\operatorname{grad}}{\longleftarrow}$	$\stackrel{\operatorname{grad}}{\longleftarrow}$	$\overset{\operatorname{grad}}{\longleftarrow}$	grad <del> </del>		
$\underset{\longleftarrow}{my\ long\ vector}$	$\underset{\longleftarrow}{my\ long\ vector}$	$\overset{my\ long\ vector}{\longleftarrow}$	$my\ long\ vector$		

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

\TestOverArrow{overleftrightarrow}				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle	
$\overline{\hspace{1cm}}$	$\overleftrightarrow{v}$	$\overleftrightarrow{v}$	$\overleftrightarrow{v}$	
$\overleftrightarrow{AB}$	$\overleftrightarrow{AB}$	$\overleftrightarrow{AB}$	$\overleftarrow{AB}$	
$\stackrel{\longleftrightarrow}{\operatorname{grad}}$	$\overset{\longleftrightarrow}{\operatorname{grad}}$	$\stackrel{\longleftrightarrow}{\operatorname{grad}}$	$\overset{\longleftarrow}{\underset{\mathrm{grad}}{\longleftrightarrow}}$	
$\stackrel{\longleftarrow}{my\ long\ vector}$	$\stackrel{\longleftarrow}{my\ long\ vector}$	$\stackrel{\longleftarrow}{my\ long\ vector}$	$\stackrel{\longleftarrow}{my\ long\ vector}$	

# 7 \underleftrightarrow

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

#### 8 \overrightharpoonup

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

#### \underrightharpoonup

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

#### $10 \ \ \texttt{\ \ } \\ \texttt{overrightharpoondown}$

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

# \underrightharpoondown

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

# \overleftharpoonup

c	verleftharpoonup}		
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overline{v}$	$\stackrel{\smile}{v}$	$\overline{v}$	'v
$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\overleftarrow{AB}$	$\stackrel{\checkmark}{AB}$
grad	$\operatorname{grad}$	grad	grad
my long vector	my long vector	my long vector	my long vector

# \underleftharpoonup

\TestOverArrow{underleftharpoonup}			
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
<u>v</u>	$\angle v$	<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
$\overline{v}$	$\overline{v}$	$\overline{v}$	$\overline{v}$
$\overline{AB}$	$\overline{AB}$	$\overline{AB}$	$\overline{AB}$
$\overline{\operatorname{grad}}$	$\overline{\operatorname{grad}}$	$\overline{\operatorname{grad}}$	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

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

#### 17 \underbar

\TestOverArrow*{und	derbar}				
Test of \	underbar and	\underbar	* macros		
\un	\underbar for different math styles				
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle		
$\underline{v}$	$\underline{v}$	$\underline{v}$	$\underline{v}$		
$\underline{AB}$	$\underline{AB}$	$\underline{AB}$	$\underline{AB}$		
$\underline{\operatorname{grad}}$	$\underline{\underline{\text{grad}}}$	$\underline{\operatorname{grad}}$	grad		
my long vector	my long vector	my long vector	my long vector		
	\underbar	kerning			
$t_{\underline{u}_{\underline{v}}}$ $\underline{t}_0$	$\underline{t}_{\underline{u}_{\underline{v}}} \qquad \underline{v}_{0} \qquad \underline{v} = \underline{v}_{x} + \underline{v}_{y} + \underline{v}_{z} = v_{x}\underline{\imath} + v_{y}\underline{\jmath} + v_{z}\underline{k}$				
\underbar* kerning					
$\underline{t}_{\underline{u}_{\underline{v}}}$ $\underline{\imath}_{\underline{v}}$	$\underline{v} = \underline{v}_x + \underline{v}_x$	$y + \underline{v}_z = v_x \underline{\imath} +$	$v_y \underline{\jmath} + v_z \underline{k}$		