# Package overarrows examples

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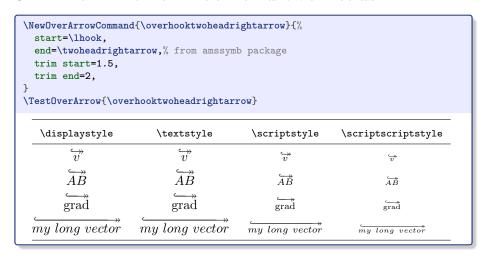
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1	1 Default arrows							
	\vec ams	old- arrows	esvect	$_{ m tikz}$	pstricks	picture	pstar- rows	
	$\vec{v}$ $\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	

# 2 Package esvect arrows

esveca	esvecb	esvecc	esvecd	esvece	esvecf	esvecg	esvech
$\overrightarrow{i}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{i}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$

#### 3 Arrow with an hook and two heads



#### 4 Left-right arrow

Note: \overleftrightarrow is already defined by amsmath package.

```
\verb|\RenewOverArrowCommand{\overleftrightarrow}|{\%}|
   start=\varleftarrow, % from old-arrows package
   end=\varrightarrow,% from old-arrows package
  trim start=7,
   trim end=7,
   center arrow,
\TestOverArrow{\overleftrightarrow}
    \displaystyle
                                     \textstyle
                                                                \scriptstyle
                                                                                         \scriptscriptstyle
                                           \overrightarrow{v}
             \overrightarrow{v}
                                           \overrightarrow{AB}
            \overrightarrow{AB}
                                                                       \overrightarrow{AB}
                                                                                                      \overrightarrow{AB}
           \overrightarrow{grad}
                                         grad
                                                                       \overrightarrow{\operatorname{grad}}
                                                                                                     \overrightarrow{\operatorname{grad}}
  my long vector
                                my long vector
                                                               \overrightarrow{my} long vector
                                                                                              my long vector
```

#### 5 Arrow with a double line

```
\verb|\NewOverArrowCommand{\OverRightarrow}{|}|
   start={\smallermathstyle\Relbar},
   middle={\smallermathstyle\Relbar},
   end={\Rightarrow},
   trim=4,
   space after arrow=.25ex,
\TestOverArrow{\OverRightarrow}
                                           \textstyle
     \displaystyle
                                                                         \scriptstyle
                                                                                                      \scriptscriptstyle
               \overrightarrow{\overline{v}}
                                                  \overrightarrow{\overline{v}}
                                                                                   \overrightarrow{\overrightarrow{v}}
                                                                                                                     \Rightarrow v
                                                \overrightarrow{\overline{AB}}
             \overrightarrow{\overline{AB}}
                                                                                  \overrightarrow{AB}
                                                                                                                     \overrightarrow{\overrightarrow{AB}}
                                                                                                                    \Longrightarrow grad
                                                                                 \overrightarrow{\operatorname{grad}}
             grad
                                                grad
                                                                                                            \xrightarrow[my\ long\ vector]{}
   my long vector
                                      my long vector
                                                                        my long vector
```

### 6 Right and left harpoons

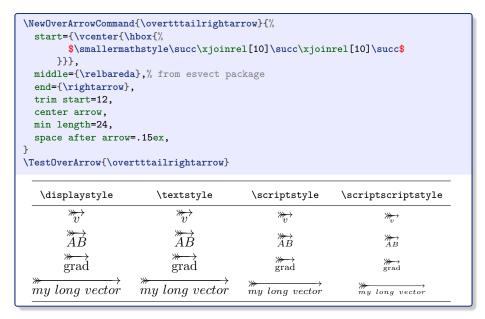
ewOverArrowComman end=\rightharpoor estOverArrow{\ove		+{%	
\displaystyle	\textstyle	\scriptstyle	\scriptscriptstyle
$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$	$\overrightarrow{v}$
$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$	$\overrightarrow{AB}$
$\overrightarrow{\operatorname{grad}}$	$\frac{-}{\operatorname{grad}}$	grad	grad
ny long vector	my long vector	my long vector	my long vector

```
\NewOverArrowCommand{\overleftharpoon}{%
  start=\leftharpoonup,
  end=\relbar,
  shift left=0,
  shift right=2,
\TestOverArrow{\overleftharpoon}
    \displaystyle
                                 \textstyle
                                                        \scriptstyle
                                                                              \scriptscriptstyle
           \overline{v}
                                      \overline{v}
                                                               \overline{v}
                                     \overline{\overline{AB}}
          \overline{AB}
                                                              \overline{AB}
                                                                                         \overline{AB}
         grad
                                    grad
                                                              grad
                                                                                        \overline{\text{grad}}
  my\ long\ vector
                            my long vector
                                                       my long vector
                                                                                  my long vector
```

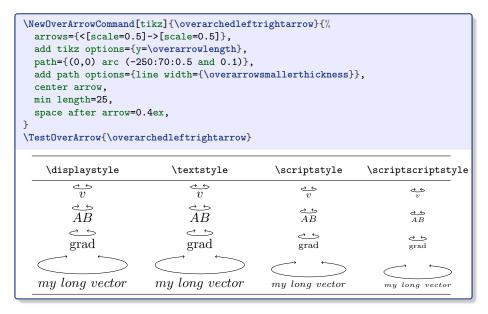
# 7 Double arrow, right and left inverted

```
\NewOverArrowCommand{\overrightleftarrow}{%
  start=\text{\usefont{U}{lasy}{m}{n}\symbol{41}},
  \verb|end=\left\{u\}_{n}^{m}_{n}\right\},
  trim start=0.7,
  trim end=0.7,
  min length=20,
  shift leftright=-2,
\TestOverArrow{\overrightleftarrow}
    \displaystyle
                                \textstyle
                                                       \scriptstyle
                                                                             \scriptscriptstyle
           \overleftarrow{v}
                                     \overleftarrow{v}
                                                              \overleftarrow{v}
          \overrightarrow{AB}
                                    \overrightarrow{AB}
                                                             \overleftarrow{AB}
                                                                                        \overleftarrow{AB}
         grad
                                    grad
                                                             grad
                                                                                       \overrightarrow{\operatorname{grad}}
  my long vector
                            my long vector
                                                      my long vector
                                                                                 my \ long \ vector
```

#### 8 Arrow with a triple tail



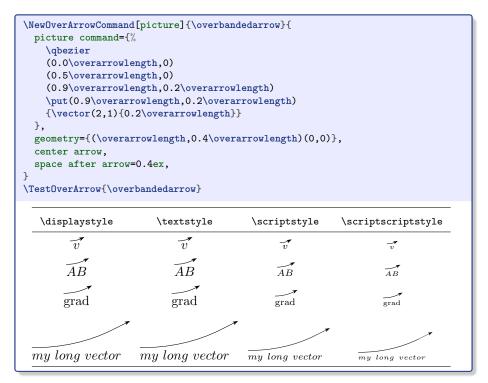
## 9 Arched left and right arrow, with tikz package



### 10 Loop and arrow, with PSTricks

```
\verb|\NewOverArrowCommand[pstricks]{\noverloop and arrow}{|} \\
  pstricks command={%
     \pscurve{->}(0,0)
     (0.6\overarrowlength, 0.05\overarrowlength)
     (0.5\overarrowlength, 0.1\overarrowlength)
     (0.4\overarrowlength,0.05\overarrowlength)
     (\overarrowlength,0)
  },
  geometry={(0,0)(\overarrowlength,0.2\overarrowlength)},
  space after arrow=2pt, min length=20,
  geometry={(0,0)(\overarrowlength,0.2\overarrowlength)},
\TestOverArrow{\overloopandarrow}
   \displaystyle
                               \textstyle
                                                     \scriptstyle
                                                                          \scriptscriptstyle
                                    \overrightarrow{v}
                                                           \overrightarrow{v}
         \overrightarrow{AB}
                                   \overrightarrow{AB}
                                                           \overrightarrow{AB}
                                                                                    \overrightarrow{AB}
         \overline{\text{grad}}
                                  \overline{\operatorname{grad}}
                                                          grad
 my long vector
                           \underbrace{my\ long\ vector}
                                                    my long vector
                                                                              my long vector
```

#### 11 Banded arrow, with picture environment



#### 12 Under arrow

Note: \underleftrightarrow is already defined by amsmath package.

```
\DeclareOverArrowCommand{\underleftrightarrow}{%
   start=\varleftarrow,
   center arrow,
   arrow under,
\TestOverArrow{\underleftrightarrow}
 \displaystyle
                              \textstyle
                                                     \scriptstyle
                                                                           \scriptscriptstyle
         \stackrel{v}{\longleftrightarrow}
                                   \stackrel{v}{\longleftrightarrow}
        <u>АВ</u>
                                  ĄВ
                                                           AB
                                                                                     AB
       grad
                                 grad
                                                           \operatorname{grad}
                                                                                     \operatorname{grad}
                          my long vector
my long vector
                                                    my long vector
                                                                               my long vector
```