

# The unicode-math test suite

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## Preamble

The following pieces of output are generated from the code shown. As well as being good minimal examples, these tests are useful to ensure that new bugs don't affect old behaviour. When the test suite is run, the new output is compared pixel by pixel with that shown here and warnings produced if the outputs are not identical.

### 1 Test 001a

```
\input{umtest-preamble}  
\usepackage[math-style=TeX]{unicode-math}  
\setmathfont{Cambria Math}  
\begin{document}  
\[\LATINtext\  
\[\latintext\  
\[\LATINmath\  
\[\latinmath\  
\end{document}
```

*ABCDEFGHIJKLMNOPQRSTUVWXYZ*  
*abcdefghijklmnopqrstuvwxyz*  
*ABCDEFGHIJKLMNOPQRSTUVWXYZ*  
*abcdefghijklmnopqrstuvwxyz*

### 2 Test 001b

```
\input{umtest-preamble}  
\usepackage[math-style=ISO]{unicode-math}  
\setmathfont{Cambria Math}  
\begin{document}  
\[\LATINtext\  
\[\latintext\  
\[\LATINmath\  
\[\latinmath\  
\end{document}
```

*ABCDEFGHIJKLMNOPQRSTUVWXYZ*  
*abcdefghijklmnopqrstuvwxyz*  
*ABCDEFGHIJKLMNOPQRSTUVWXYZ*  
*abcdefghijklmnopqrstuvwxyz*

### 3 Test 001c

```
\input{umtest-preamble}
\usepackage[math-style=literal]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\backslash\text{LATINtext}\]
\[\backslash\text{latinintext}\]
\[\backslash\text{LATINmath}\]
\[\backslash\text{latinmath}\]
\end{document}
```

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

### 4 Test 001d

```
\input{umtest-preamble}
\usepackage[math-style=French]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\backslash\text{LATINtext}\]
\[\backslash\text{latinintext}\]
\[\backslash\text{LATINmath}\]
\[\backslash\text{latinmath}\]
\end{document}
```

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

### 5 Test 002a

```
\input{umtest-preamble}
\usepackage[math-style=TeX]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\backslash\text{GREEKtext}\]
\[\backslash\text{greektext}\]
\[\backslash\text{GREEKmath}\]
\[\backslash\text{greekmath}\]
\end{document}
```

ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ

αβγδεζηθικλμνξοπρρςστυφφχψω

ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ

αβγδεζηθικλμνξοπρρςστυφφχψω

## 6 Test 002b

```
\input{umtest-preamble}
\usepackage[math-style=ISO]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\GREEKtext\]
\[\greektext\]
\[\GREEKmath\]
\[\greekmath\]
\end{document}
```

*ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ*  
*αβγδεζηθικλμνξοπρρςστυφφχψω*  
*ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ*  
*αβγδεζηθικλμνξοπρρςστυφφχψω*

## 7 Test 002c

```
\input{umtest-preamble}
\usepackage[math-style=literal]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\GREEKtext\]
\[\greektext\]
\[\GREEKmath\]
\[\greekmath\]
\end{document}
```

*ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ*  
*αβγδεζηθικλμνξοπρρςστυφφχψω*  
*ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ*  
*αβγδεζηθικλμνξοπρρςστυφφχψω*

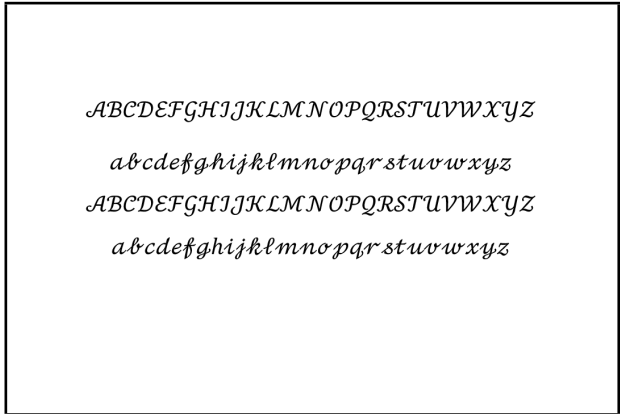
## 8 Test 002d

```
\input{umtest-preamble}
\usepackage[math-style=French]{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\GREEKtext\]
\[\greektext\]
\[\GREEKmath\]
\[\greekmath\]
\end{document}
```

*ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ*  
*αβγδεζηθικλμνξοπρρςστυφφχψω*  
*ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ*  
*αβγδεζηθικλμνξοπρρςστυφφχψω*

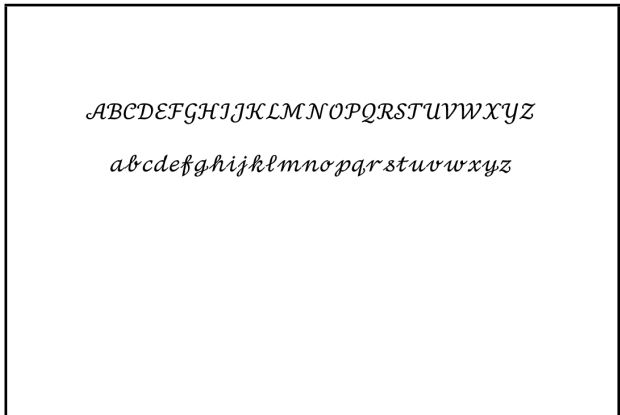
## 9 Test 010a

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathcal{\text{LATINtext}}\]
\[\mathcal{\text{latintext}}\]
\[\mathcal{\text{LATINmath}}\]
\[\mathcal{\text{latinmath}}\]
\end{document}
```



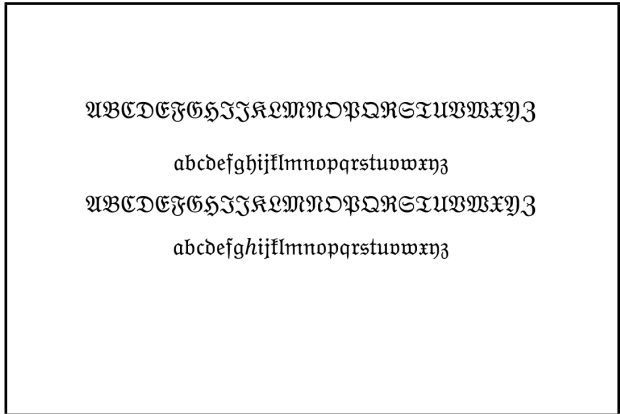
## 10 Test 010b

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\text{LATINmathscr}\]
\[\text{latinmathscr}\]
\[\text{reservedmathscr}\]
\end{document}
```



## 11 Test 010c

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathfrak{\text{LATINtext}}\]
\[\mathfrak{\text{latintext}}\]
\[\mathfrak{\text{LATINmath}}\]
\[\mathfrak{\text{latinmath}}\]
\end{document}
```



## 12 Test 011a

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathup{\text{LATINtext}}\]
\[\mathup{\text{LATINtext}}\]
\[\mathup{\text{LATINmath}}\]
\[\mathup{\text{LATINmath}}\]
\end{document}
```

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

## 13 Test 011b

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathup{\text{GREEKtext}}\]
\[\mathup{\text{GREEKtext}}\]
\[\mathup{\text{GREEKmath}}\]
\[\mathup{\text{GREEKmath}}\]
\end{document}
```

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## 14 Test 012a

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathit{\text{LATINtext}}\]
\[\mathit{\text{LATINtext}}\]
\[\mathit{\text{LATINmath}}\]
\[\mathit{\text{LATINmath}}\]
\end{document}
```

*ABCDEFGHIJKLMNOPQRSTUVWXYZ*

*abcdefghijklmnopqrstuvwxyz*

*ABCDEFGHIJKLMNOPQRSTUVWXYZ*

*abcdefghijklmnopqrstuvwxyz*

# 15 Test 012b

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathit{\text{\GREEKtext}}\]
\[\mathit{\text{\greektext}}\]
\[\mathit{\text{\GREEKmath}}\]
\[\mathit{\text{\greekmath}}\]
\end{document}
```

ABΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ
αβγδεεζηθικκλμνξοπρρςστυφφχψω
ABΓΔΕΖΗΘΘΙΚΛΜΝΞΟΠΡΣΤΥΦΧΨΩ
αβγδεεζηθικκλμνξοπρρςστυφφχψω

# 16 Test 013a

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathbb{\text{\LATINtext}}\]
\[\mathbb{\text{\latintext}}\]
\[\mathbb{\text{\LATINmath}}\]
\[\mathbb{\text{\latinmath}}\]
\end{document}
```

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvmwxyz
ABDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvmwxyz

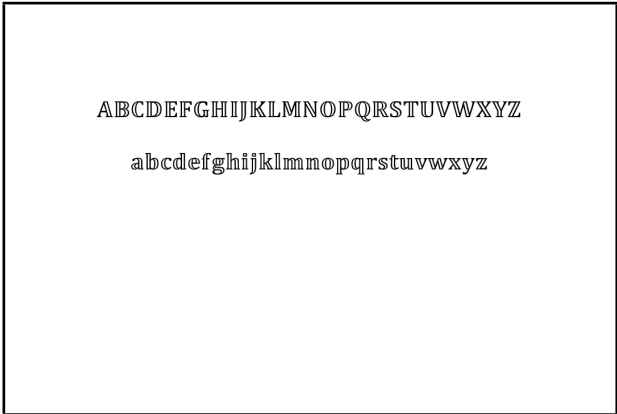
# 17 Test 013b

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathbb{0123456789}\]
\[\numbersmathbb{\}]
\end{document}
```

0123456789
0123456789

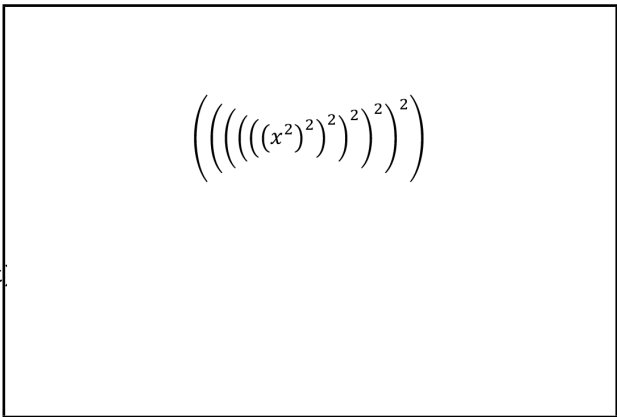
18 Test 013c

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\mathrm{ABCDEFGHIJKLMNOPQRSTUVWXYZ}\]
\[\mathrm{abcdefghijklmnopqrstuvwxyz}\]
\[\reservedfontdimen\]
\end{document}
```



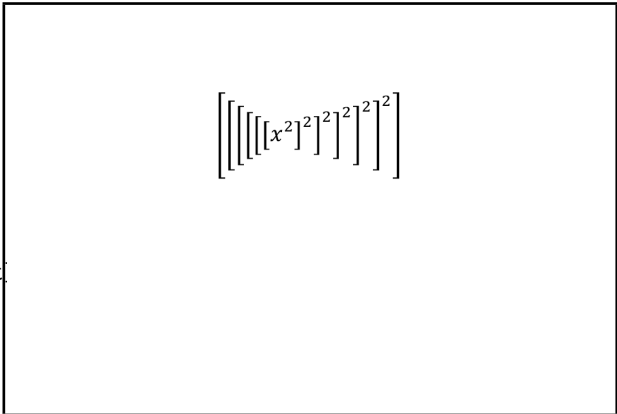
19 Test 100a

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\left(\left(\left(\left(\left(x^2\right)^2\right)^2\right)^2\right)^2\right)\]
\end{document}
```



20 Test 100b

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\left[\left[\left[\left[\left[\left[x^2\right]^2\right]^2\right]^2\right]^2\right]\]
\end{document}
```



## 21 Test 100c

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[\left\{\left\{\left\{\left\{\left\{\left\{\left\{\right\}\right\}\right\}\right\}\right\}\right\}^2\right\}\right\}^2\right\}\right\}^2\right\}\right\}^2\right\}
\end{document}
```

$$\left\{\left\{\left\{\left\{\left\{\left\{x^2\right\}^2\right\}^2\right\}^2\right\}^2\right\}^2\right\}$$

## 22 Test 100d

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[ \left| \left| \left| \left| \left| \left| x^2 \right|^2 \right|^2 \right|^2 \right|^2 \right|^2 \right|
\left| \left| \left| \left| \left| \left| \right|^2 \right|^2 \right|^2 \right|^2 \right|^2 \right|
\left| \left| \left| \left| \left| \left| \right|^2 \right|^2 \right|^2 \right|^2 \right|^2 \right|
\left| \left| \left| \left| \left| \left| \right|^2 \right|^2 \right|^2 \right|^2 \right|^2 \right|
\end{document}
```

$$\left| \left| \left| \left| \left| \left| x^2 \right|^2 \right|^2 \right|^2 \right|^2 \right|^2 \right|^2$$

$$\left| \left| \left| \left| \left| \left| x^2 \right|^2 \right|^2 \right|^2 \right|^2 \right|^2 \right|^2$$

## 23 Test 100e

```
\input{umtest-preamble}
\usepackage{unicode-math}
\setmathfont{Cambria Math}
\begin{document}
\[ \left \left \left \left \left \left x^2
\right ^2 \right ^2 \right ^2 \right ^2 \right
\[ \left\Vert \left\Vert \left\Vert \left\Vert \left\Vert \left\Vert
\right\Vert^2 \right\Vert^2 \right\Vert^2 \right\Vert^2 \right\Vert^2
\end{document}
```

$$\left\| \begin{pmatrix} x^2 \\ x^2 \\ x^2 \\ x^2 \\ x^2 \end{pmatrix} \right\|^2$$

[illegible]



24    Test 150a

```
\input{umtest-preamble}  
\usepackage{amsmath,unicode-math}  
\setmathfont{Cambria Math}  
\begin{document}  
\centerline{$\int\!\!\!\int\!\!\!\int\!\!\!\int\!\!\!\int$}  
\[\int\!\!\!\int\!\!\!\int\!\!\!\int\!\!\!\int\!\!\!\int\]  
\end{document}
```

$$\int \int \cdots \int$$
$$\int \int \cdots \int$$