

Example 1: Usage of \hat{x}

```

4 \parindent=0pt\large
5
6 Simple syntax: \verb|\xhat{<text>}|
7
8 \[
9     xxx \xhat{abcd} yyy = \xhat{ST}
10 \]
11
12 Be careful: surround the first and last ``complex symbol" in
13   ↳ braces or not?
14
15 \begin{align*}
16   abc \xhat{a^2bc}ddd \quad & \&= \xhat{ST_2} \quad \tag{without braces} \\
17   abc \xhat{{a^2}bc}ddd \quad & \&= \xhat{S{T_2}} \quad \tag{with braces} \\
18   abc \xhat{a^2bc}ddd \quad & \&= \xhat{S{T_2}} \quad \tag{more preferable}
19 \end{align*}

```

Simple syntax: `\xhat{<text>}`

$$xx\overleftrightarrow{ab}cdy\overleftrightarrow{yy} = ST$$

Be careful: surround the first and last “complex symbol” in braces or not?

$$abca^2bcddd = \overleftrightarrow{ST_2} \quad (\text{without braces})$$

$$abca^2bcddd = \overleftrightarrow{ST_2} \quad (\text{with braces})$$

$$abca^2bcddd = \overleftrightarrow{ST_2} \quad (\text{more preferable})$$

Example 2: Usage of \xhat

```

1 Full syntax: \verb|\xhat[<phantom height text>]{<text>}|
2 \begin{align*}
   \xhat{\{\bm{T}\}\{\bm{S}\}} &=
4   \xhat{\{\bm{g}\}^{k^{2^2}}\bm{g}^l\bm{g}_r\bm{g}_s}
                                   \tag{different heights} \\
6   \xhat[\bm{g}^{k^{2^2}}]{\{\bm{T}\}\{\bm{S}\}} &=
   \xhat{\{\bm{g}\}^{k^{2^2}}\bm{g}^l\bm{g}_r\bm{g}_s}
                                   \tag{same height}
8 \end{align*}

```

Full syntax: `\xhat[<phantom height text>]{<text>}`

$$\begin{array}{ll}
 \overset{\text{f}}{\underset{\text{f}}{\downarrow}} TS = \overset{\text{f}}{\underset{\text{f}}{\downarrow}} g^{k^{2^2}} \overset{\text{f}}{\underset{\text{f}}{\downarrow}} g^l g_r g_s & \text{(different heights)} \\
 \overset{\text{f}}{\underset{\text{f}}{\downarrow}} TS = \overset{\text{f}}{\underset{\text{f}}{\downarrow}} g^{k^{2^2}} \overset{\text{f}}{\underset{\text{f}}{\downarrow}} g^l g_r g_s & \text{(same height)}
 \end{array}$$