Example 1: Simple syntax of \xhat

```
Simple syntax: \Verb|\xhat{<text>}|
\[ xxx \xhat{abcd} yyy = \xhat{ST} \]

Be careful: surround the first and last ``compound symbol" in
↪  braces or not?
\begin{align*}
  abc \xhat{a^2bc}ddd   &= \xhat{ST_2}    \tag{without braces}  \\
  abc \xhat{{a^2}bc}ddd &= \xhat{S{T_2}}  \tag{with braces}     \\
  abc \xhat{a^2bc}ddd   &= \xhat{S{T_2}}  \tag{more preferable}
\end{align*}
```

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

$$\xhat{xxx}abcdyyy = \xhat{ST}$$

Be careful: surround the first and last "compound symbol" in braces or not?

$$abc\xhat{a^2bc}ddd = \xhat{ST_2} \qquad \text{(without braces)}$$

$$abc\xhat{a^2bc}ddd = \xhat{ST_2} \qquad \text{(with braces)}$$

$$abc\xhat{a^2bc}ddd = \xhat{ST_2} \qquad \text{(more preferable)}$$

Example 2: Full syntax of \xhat

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

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

$$\xhat{\boldsymbol{TS}} = \xhat[\boldsymbol{g}^{k^{2^2}}]{\boldsymbol{g}^l\boldsymbol{g}_r\boldsymbol{g}_s} \qquad \text{(different heights)}$$

$$\xhat{\boldsymbol{TS}} = \xhat[\boldsymbol{g}^{k^{2^2}}]{\boldsymbol{g}^l\boldsymbol{g}_r\boldsymbol{g}_s} \qquad \text{(same height)}$$