If we want expressions such as

$$\lim_{x\to+\infty}$$

$$\inf_{x>s}$$

$$\sup_{K}$$

we can use:

```
%
\[ \lim_{x\to +\infty} \]
%
\[ \inf_{x>s} \]
%
\[ \sup_K \]
%
```

Summations can be obtained as follows:

```
\[ \sum_{i=0}^{2n-1} a_i x^i \]
```

which produces

$$\sum_{i=0}^{2n-1} a_i x^i$$

Integrals such as

$$y = \int_0^1 f(x)\mathrm{d}x$$

can be obtained by code such as

```
\[ y = \int_0^1 f(x) \mathrm{d}x\]
```

LaTeX sometimes places too much space between integral signs, especially when typing double-integral expressions. For example, we do not want

$$z = \int\int_A f(x,y)\mathrm{d}x\mathrm{d}y$$

we would rather

$$z = \iint_A f(x,y)\,\mathrm{d}x\,\mathrm{d}y$$

This reduced spacing is achieved with the `\!` control sequence. To format the above integral, three of these are placed between the integral signs. Note that we have also used `\,` to add a little spacing between the dx and dy:

```
\[ z = \int\!\!\!\int_A f(x,y) \,\mathrm{d}x\,\mathrm{d}y\]
```