So let's see some math in LATEX: $\sqrt{a^2 + b^2}$, $\lim_{x \to \infty} \frac{2x+1}{3x+5}$, $\alpha = \psi \circ \beta \circ \psi^{-1}$. And

$$\lim_{x \to \infty} \frac{2x+1}{3x+5} \qquad \qquad \sum_{i=1}^{\infty} \frac{1}{n^2} \qquad \qquad \{r \in \mathcal{R} : r^2 < 0\} = \emptyset$$

As you can see, the command words are usually easy to figure out. Underbar means the next symbol (or group of symbols, if they are bound together in braces) is made a subscript, and caret means superscript. Some command words, like the one for limit, just put the same word in normal (Roman) type. One tricky thing is the symbol I've used here for the real numbers, a capital R is "mathematical calligraphy" type. Notice the differences between ϕ , φ and \emptyset ; and between ϵ , ε and \in .