1

```
\label{eq:basic_constraints} \label{eq:basic_constraints} \ \repeat
```

These commands provide a looping construct for T_EX . Here α and β are arbitrary sequences of commands and is any of the conditional tests described in "Conditional tests" (p. 'conds'). The \repeat replaces the \fi corresponding to the test, so you must not write an explicit \fi to terminate the test. Nor, unfortunately, can you associate an \else with the test. If you want to use the test in the opposite sense, you need to rearrange the test or define an auxiliary test with \newif (see above) and use that test in the sense you want (see the second example below).

TeX expands \loop as follows:

- 1) α is expanded.
- 2) is performed. If the result is false, the loop is terminated.
- 3) β is expanded.

 $6\; 5\; 4\; 3\; 2\; 1\; 0\\$

4) The cycle is repeated.

```
Example:
```

```
\count255 = 6
  \loop
     \number\count255\
     \advance\count255 by -1
  \repeat
produces:
 6\; 5\; 4\; 3\; 2\; 1\; 0\\
  \newif\ifnotdone % \newif uses \count255 in its definition
  \count255=6
  \loop
     \number\count255\
     \ifnum\count255 < 1 \notdonefalse\else\notdonetrue\fi
     \ifnotdone
        \advance\count255 by -1
  \repeat
produces:
```