

$\{$	<code>\lbrace</code>	$[$	<code>\lbrack</code>	$\lceil$	<code>\lceil</code>
$\{$	<code>\{</code>	$]$	<code>\rbrack</code>	$\rceil$	<code>\rceil</code>
$\}$	<code>\rbrace</code>	$\langle$	<code>\langle</code>	$\lfloor$	<code>\lfloor</code>
$\}$	<code>\}</code>	$\rangle$	<code>\rangle</code>	$\rfloor$	<code>\rfloor</code>

These commands produce left and right delimiters. Mathematicians use delimiters to indicate the boundaries between parts of a formula. Left delimiters are also called “openings”, and right delimiters are also called “closings”. Openings and closings are two of T<sub>E</sub>X’s classes of math symbols. T<sub>E</sub>X puts different amounts of space around different classes of math symbols. You might expect the space that T<sub>E</sub>X puts around openings and closings to be symmetrical, but in fact it isn’t.

Some left and right delimiters have more than one command that you can use to produce them:

- ‘{’ (`\lbrace` and `\{`)
- ‘}’ (`\rbrace` and `\}`)
- ‘[’ (`\lbrack` and `[`)
- ‘]’ (`\rbrack` and `]`)

You can also use the left and right bracket characters (in either form) outside of math mode.

In addition to these commands, T<sub>E</sub>X treats ‘(’ as a left delimiter and ‘)’ as a right delimiter.

You can have T<sub>E</sub>X choose the size for a delimiter by using `\left` and `\right` (p. ‘`\left`’). Alternatively, you can get a delimiter of a specific size by using one of the `\big` commands (see `\big` et al., p. ‘`\big`’).

*Example:*

The set  $\{x \mid x > 0\}$  is empty.

*produces:*

The set  $\{x \mid x > 0\}$  is empty.