

1

$\vee$ \vee	$\cdot$ \cdot	$\triangleleft$ \triangleleft
$\wedge$ \wedge	$\diamond$ \diamond	$\triangleright$ \triangleright
$\amalg$ \amalg	$\bullet$ \bullet	$\bigtriangledown$ \bigtriangledown
$\cap$ \cap	$\circ$ \circ	$\bigtriangleup$ \bigtriangleup
$\cup$ \cup	$\bigcirc$ \bigcirc	$*$ \ast
$\uplus$ \uplus	$\odot$ \odot	$\star$ \star
$\sqcap$ \sqcap	$\ominus$ \ominus	$\times$ \times
$\sqcup$ \sqcup	$\oplus$ \oplus	$\div$ \div
$\dagger$ \dagger	$\oslash$ \oslash	$\backslash$ \setminus
$\ddagger$ \ddagger	$\otimes$ \otimes	$\wr$ \wr
$\land$ \land	$\pm$ \pm	
$\lor$ \lor	$\mp$ \mp	

These commands produce the symbols for various binary operations. Binary operations are one 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. When T<sub>E</sub>X needs to break a line of text within a math formula, it will consider placing the break after a binary operation—but only if the operation is at the outermost level of the formula, i.e., not enclosed in a group.

In addition to these commands, T<sub>E</sub>X also treats '+' and '-' as binary operations. It considers '/' to be an ordinary symbol, despite the fact that mathematically it is a binary operation, because it looks better with less space around it.

*Example:*

```


$$z = x \div y \quad \text{if and only if} \quad z \times y = x \text{ and } y \neq 0$$


```

*produces:*

$$z = x \div y \quad \text{if and only if} \quad z \times y = x \text{ and } y \neq 0$$