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\cap	\bigcap	$\backslash\mathrm{bigcap}$	\sqcup	\bigsqcup	$\backslash\mathrm{bigsqcup}$	\int	\smallint	$\backslash\mathrm{smallint}$
\cup	\bigcup	$\backslash\mathrm{bigcup}$	\uplus	\biguplus	$\backslash\mathrm{biguplus}$	\int	\int	$\backslash\mathrm{int}$
\odot	\bigodot	$\backslash\mathrm{bigodot}$	\vee	\bigvee	$\backslash\mathrm{bigvee}$	\oint	\oint	$\backslash\mathrm{ooint}$
\oplus	\bigoplus	$\backslash\mathrm{bigoplus}$	\wedge	\bigwedge	$\backslash\mathrm{bigwedge}$	\prod	\prod	$\backslash\mathrm{prod}$
\otimes	\bigotimes	$\backslash\mathrm{bigotimes}$	\coprod	\coprod	$\backslash\mathrm{coprod}$	\sum	\sum	$\backslash\mathrm{sum}$

These commands produce various large operator symbols. T_EX produces the smaller size when it's in text style and the larger size when it's in display style. Operators are one of T_EX's classes of math symbols. T_EX puts different amounts of space around different classes of math symbols.

The large operator symbols with ‘big’ in their names are different from the corresponding binary operations (see p. ‘binops’) such as $\backslash\mathrm{cap}$ (\cap) since they usually appear at the beginning of a formula. T_EX uses different spacing for a large operator than it does for a binary operation.

Don't confuse ‘ \sum ’ ($\backslash\mathrm{sum}$) with ‘ Σ ’ ($\backslash\mathrm{Sigma}$) or confuse ‘ \prod ’ ($\backslash\mathrm{prod}$) with ‘ Π ’ ($\backslash\mathrm{Pi}$). $\backslash\mathrm{Sigma}$ and $\backslash\mathrm{Pi}$ produce capital Greek letters, which are smaller and have a different appearance.

A large operator can have limits. The lower limit is specified as a subscript and the upper limit as a superscript.

Example:

$\backslash\mathrm{bigcap}_{k=1}^r (a_k \cup b_k)$

produces:

$$\bigcap_{k=1}^r (a_k \cup b_k)$$

Example:

$\int_0^\pi \sin^2 ax \, dx = \frac{\pi}{2}$

produces:

$$\int_0^\pi \sin^2 ax \, dx = \frac{\pi}{2}$$