

## Lecture 23.01.2020 - Latex

To make references to equations in the text, type `\label{<name>}` and then refer to it using `\ref{<name>}`, it will automatically be done.

There is a command for splitting equation over multiple lines, look it up.

### Greek letters

Name	Symbol
pi	$\pi$
chi	$\chi$
rho	$\rho$
Pi	$\Pi$
Psi	$\Psi$

### Symbols of binary operations

Name	Symbol
big triangle down	$\nabla$
dagger	$\dagger$
minus	$-$
times	$\times$

### Unusual symbols

Name	Symbol
approximately	$\approx$
parallel	$\parallel$
not in	$\notin$

### Inline formulae

- $M = \{x \in A \mid x > 0\}$
- $f: X \rightarrow Y$
- $\tan \alpha = \tan \alpha, \ln(e) = \ln(e)$
- It is easy to see that  $23^{1993} \equiv 1 \pmod{G}$
- $\text{sum} = \sum_1^n x$
- $\text{product} = \prod_1^n x$
- $\text{supremum} = \sup x$
- $\text{limit with upper bound} = \overline{\lim} x$

### Big formulae

$$\sum_{i=1}^n n^2 = \frac{n(n+1)(2n+1)}{6}$$

$$\overline{\lim}_{n \rightarrow \infty} a_n = \inf_n \sup_{m \geq n} a_m$$

$$\oint_{-\infty}^{+\infty} f(x)dx = \frac{1}{3}$$

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$$\prod_{n=1}^n i = 0$$

## Symbols of other operators or special characters

Name	Symbol
partials	$\partial$
infinity	$\infty$
nabla	$\nabla$
for all:	$\forall$ :
norm	$\ A\ $
asterisk	$*$
not equal	$\neq$
in, owns	$\in, \ni$
greater or equal	$\geq$
lesser or equal	$\leq$