

Symbols for Term Papers

The pdf will be just the typeset symbols, so you'll have to look at the tex file to get the commands. If it's not in here and you need it, it is probably done via the standard keyboard symbol (possibly in math mode; that is, enclosed by dollar signs).

1. LETTERS

- Greek: $\chi, \chi_A, \lambda, \eta, \beta, \alpha, \varphi, \varphi_e^X$
- Roman and modified Roman: $W_{e,s}, \mathbb{N}$ (also: $\mathbb{Z}, \mathbb{Q}, \mathbb{R}, \mathbb{C}$), \bar{A}, a^{n1}
- Letter-like: $\emptyset, \forall, \exists$

2. RELATIONS AND OPERATIONS

- $\in, \notin, \setminus, \backslash, \cap, \cup, \subset, \subseteq, \subsetneq$; likewise with “sup” instead of “sub”, e.g. \supseteq
- $\cdot, \leq, \geq, \neq, \leq_T, |_T, \equiv_T$

3. OTHER SYMBOLS

- $\uparrow, \downarrow, \rightarrow, \mapsto, \longrightarrow, \mapsto$
- $\langle, \rangle, \{, \}$
- $\sum, \sum_{n=0}^{\infty}, \sum_{n=0}^{\infty}$

Symbols without built-in negations may be negated by prefacing with the “not” command: $\not\subseteq$. Symbols may be boldfaced with “boldsymbol”: $\mathbf{d}, \boldsymbol{\lambda}$.

You may create your own math operators like “cos” and “min” (many are built-in and used by prefacing with a backslash) with “DeclareMathOperator”. It goes in the header (before the “begin document” command); see example in this document. This allows it to be in math mode typeset non-italic and with correct spacing: $\text{Dom}(f)$.

Finally, on a spacing note, for halting and diverging the arrows often end up far away from the function, and it is nice to shift them. Here is the command: $\varphi_e(x) \downarrow$ versus $\varphi_e(x) \downarrow$.