Math 504 LaTeX Symbols

Math 504

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Firstly, I recommend you load the `amsmath`, `amssymb` and `mathrsfs` packages. Some of the commands below won't work without them!

Here is some of the most used symbols for this semester (they need to be in *math-mode*, i.e., surrounded by $'s or between `\[` and `\]`):

Symbol	Command
$\leq$ (less than or equal to)	`\leq`
$\geq$ (greater than or equal to)	`\geq`
$\neq$ (not equal to)	`neq`
2^{100} (exponents)	`2^{100}`
a_{84} (subscripts)	`a^{84}`
$\frac{32}{873}$ (fractions)	`\frac{32}{873}`
$\land$ (and)	`\land`
$\lor$ (or)	`\lor`
$\neg$ (not)	`\neg`
$\rightarrow$ (implies)	`\rightarrow`
$\leftrightarrow$ (iff)	`\leftrightarrow`

Symbol	Command
$\in$ (belongs to)	`\in`
$\notin$ (does not belongs to)	`\not\in`
$\cup$ (union)	`\cup`
$\cap$ (intersection)	`\cap`
$\subseteq$ (contained in)	`\subseteq`
$\supseteq$ (contains)	`\supseteq`
$\setminus$ (difference of sets)	`\setminus`
$\subsetneq$ (contained in but different)	`\subsetneq`
$\supsetneq$ (contains but different)	`\supsetneq`
$\{\}$ (braces)	`\{ \}`
$\mathbb{Z}$ (integers)	`\mathbb{Z}`
$\varnothing$ (empty set)	`\varnothing`
$\forall$ (for all)	`\forall`
$\exists$ (there exists)	`\exists`
$\mathcal{F}$ (family F of sets)	`\mathcal{F}`
$\mathscr{P}$ (power set)	`\mathscr{P}`
$\bigcup_{i \in I} A_i$ (union)	`\bigcup_{i \in I} A_i`
$\bigcap_{i \in I} A_i$ (intersection)	`\bigcap_{i \in I} A_i`

To insert text inside math mode, like in set representation, use the `\text` command:

$$\{x \in \mathbb{Z} \mid x \text{ is odd}\}$$

is accomplished with `\{ x \in \mathbb{Z} \; | \; x \text{ is  odd} \}`. (The `\;` introduces extra horizontal space.)