# CIS260-201/204–Spring 2008

## LaTeX Symbol Set #3

Friday, February 8

## 1 Symbols

| Symbol | LaTeX Code | Remarks |
|---|---|---|
| $\div$ | `\div` | |
| $\leq$ | `\leq` | |
| $\geq$ | `\geq` | |
| $\not$ | `\not` | |
| $\bigcap$ | `\bigcap` | |
| $\bigcup$ | `\bigcup` | |
| $\sum$ | `\sum` | |
| $\prod$ | `\prod` | |
| $\dots$ | `\dots` | |
| $\cdots$ | `\cdots` | |
| $\leftarrow$ | `\leftarrow` | |
| $\rightarrow$ | `\rightarrow` | |
| $\leftrightarrow$ | `\leftrightarrow` | |
| $\iff$ | `\iff` | |
| $\equiv$ | `\equiv` | |
| (mod ) | `\pmod` | |
| mod | `\bmod` | |
| $\because$ | `\because` | Need **amssymb** package. |
| $\therefore$ | `\therefore` | Need **amssymb** package. |

## 2 Examples

| Expression | LaTeX Code |
|---|---|
| $a_{11}$ | `a_{11}` |
| $6\div 2=3$ | `6\div 2=3` |
| $x^2\geq 0$ | `x^2\geq 0` |
| $1\not\leq 0$ | `1\not\leq 0` |
| $\bigcap_{x=0}^{n}{[x,n]}=\{n\}$ | `\bigcap_{x=0}^{n}{[x,n]}=\{n\}` |
| $\bigcup_{x=0}^{n}{[x,n]}=[0,n]$ | `\bigcup_{x=0}^{n}{[x,n]}=[0,n]` |
| $\sum_{i=1}^{n}{i}=1+2+\cdots+n$ | `\sum_{i=1}^{n}{i}=1+2+\cdots+n` |
| $\prod_{i=1}^{n}{i}=n!$ | `\prod_{i=1}^{n}{i}=n!` |
| $a_1,a_2,\dots,a_n\in\mathbb Z$ | `a_1,a_2,\dots,a_n\in\mathbb Z` |
| $[(x\wedge(x\rightarrow y))\rightarrow y]\leftrightarrow T$ | `[(x\wedge(x\rightarrow y))\rightarrow y] \leftrightarrow T` |
| $A\subseteq B\iff \forall x\in A: x\in B$ | `A\subseteq B\iff \forall x\in A: x\in B` |
| $5\equiv 2\pmod 3$ | `5\equiv 2\pmod 3` |
| $4\bmod 2=0$ | `4\bmod 2=0` |

## 3 Exercises

Try typesetting these statements.

1. $\sum_{i=1}^{n} i^2 = 1+4+9+\cdots+n^2 = \frac{n(n+1)(2n+1)}{6}$
2. $10\cdot 9\cdot 8 = \frac{10!}{7!} = \prod_{i=1}^{3}(i+7)$
3. If $a_1 \leq a_2 \leq \ldots \leq a_n \leq a_1$, then $a_1 = a_2 = \ldots = a_n$.
4. $x \not\geq y \rightarrow x < y$
5. $n \mid (a-b) \leftrightarrow a \equiv b \pmod n$