Useful Latex Commands for CMSC 250

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1 General

Not Equal: \(\neq\) - \texttt{\neq}
Exponentiation: \(a^b\) - \texttt{a^b}
Square root: \(\sqrt{x}\) - \texttt{\sqrt{x}}
Nth root: \(\sqrt[n]{x}\) - \texttt{\sqrt[n]{x}}
Multiplication symbol: \(\times\) - \texttt{\times}
Division symbol: \(\div\) - \texttt{\div}
Fraction: \(\frac{a}{b}\) - \texttt{\frac{a}{b}}
Floor: \(\lfloor a \rfloor\) - \texttt{\lfloor a \rfloor}
Ceiling: \(\lceil a \rceil\) - \texttt{\lceil a \rceil}
Natural Numbers: \(\mathbb{N}\) - \texttt{\mathbb{N}}
Integers: \(\mathbb{Z}\) - \texttt{\mathbb{Z}}
Positive Integers: \(\mathbb{Z}^+\) - \texttt{\mathbb{Z}^+}
Dots: \(\ldots\) - \texttt{\ldots}
Left brace: \{ - \texttt{\{}
Right brace: \} - \texttt{\}}
Summation: \(\sum_{i=1}^{n} i^2 + i\) - \texttt{\sum_{i=1}^{n} i^2 + i}
Product notation: \(\prod_{i=1}^{n} i^2 + i\) - \texttt{\prod_{i=1}^{n} i^2 + i}

2 Greek Letters

Epsilon: \(\epsilon\) - \texttt{\epsilon}

3 Logical

Logical Negation: \(\bar{p}\) or \(\overline{p}\) - \texttt{\bar{p}} or \texttt{\overline{p}}
Logical Not: \(\neg p\) - \texttt{\neg p}
Logical And / Conjunction: \(\land\) - \texttt{\land}
Logical Or / Disjunction: \(\lor\) - \texttt{\lor}
4 Quantifiers

For all: ∀ - \forall
There exists: ∃ - \exists

5 Set Notation

Is element of: ∈ - \in
Not element of: /∈ - \not \in
Is proper subset of: ⊂ - \subset
Not proper subset of: /⊂ - \not \subset
Is subset of: ⊆ - \subseteq
Not subset of: /⊆ - \not \subseteq
Union: ∪ - \cup
Intersection: ∩ - \cap
Complement of set A: \overline{A} - \overline{A}
Set Difference/Minus: \setminus - \setminus
Cartesian Product: × - \times
Power Set: 2^A - 2^A

6 Counting

Combinations: \binom{n}{2} - \binom{n}{2}
Falling Factorial: (n)_k - (n)_k