

# List of Symbols: COMP2711H

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# List of Key Symbols in COMP2711H

## Set Symbols

- $\mathbb{Z}$ , the set of all integers.
- $\mathbb{N} = \{1, 2, 3, \dots\}$ , the set of natural numbers.
- $\mathbb{Q} = \{m/n \mid m, n \in \mathbb{Z}, n \neq 0\}$ , the set of rational numbers.
- $\mathbb{R}$  is the set of all real numbers.
- $\mathbb{C}$  is the set of all complex numbers.
- $\mathbb{Z}_n = \{0, 1, 2, \dots, n-1\}$
- $\text{GF}(p) = \mathbb{F}_p = \mathbb{Z}_p$

## Algebraic Structures

- $(\mathbb{Z}, +, \cdot)$ , the ring of integers.
- $(\mathbb{Q}, +, \cdot)$ , the field of rational numbers.
- $(\mathbb{R}, +, \cdot)$ , the field of real numbers.
- $(\mathbb{C}, +, \cdot)$ , the field of complex numbers.
- $(\mathbb{Z}_n, \oplus_n, \otimes_n)$ , the ring of integers modulo  $n$ .
- $\text{GF}(p^m)$ , the finite field with  $p^m$  elements.
- $\mathbb{F}[x]$ , the polynomial ring over the field  $\mathbb{F}$ .