Sixth lecture

• Sets

$a \in A$, $A \subseteq B$, $A \subset B$

$A \cup B$, $A \cap B$, $A \setminus B$, $A \times B$, A^c, $\mathcal{P}(A)$, $\varnothing$

$|A|$

Boolean algebra

$\mathbb{Z}_+$, $\mathbb{N}$, $\mathbb{Z}$, $\mathbb{Q}$, $\mathbb{R}$, $\mathbb{C}$, ...

• Binary relations

$\mathcal{R} \subseteq X^2$, properties

Equivalence relations, partitions

Partial orders

• Well-orderings

Ordinals