

\mathbb{R} - set of real numbers

$<$ - less than

$>$ - greater than

$+$ - sum

$x, y \in \mathbb{R}$

$x < y$, $x > y$ are sentential functions

$x + y$ is a designatory function

$$Ax 1: \forall x, y \quad (x=y) \vee (x < y) \vee (x > y)$$

$$Ax 2: \forall x, y \quad x < y \rightarrow \sim y < x$$

$$x < y \rightarrow y \neq x$$

$$Ax 3: x > y \rightarrow y \neq x$$

$$Ax 4: (x < y \wedge y < z) \rightarrow x < z$$

$$Ax 5: (x > y \wedge y > z) \rightarrow x > z$$