Event-B mathematical basis: predicate calculus

- A predicate is a logical expression, which can be evaluated to the constants *TRUE* or *FALSE* (of the predefined type *BOOL*), for example, $x \geq y$, $n \geq 0$, $x \in S$, $y \subseteq S$, or $z = Exp(x, y)$

- Standard logical constants and operations in Event-B (graphical notation, followed by the equivalent ascii notation):

$\wedge$	&	logical conjunction
$\vee$	or	logical disjunction
$\Rightarrow$	=>	logical implication
$\Leftrightarrow$	<=>	logical equivalence
$\neg$	not	logical negation
$\forall z.\ P \Rightarrow Q$	!z. P => Q	universal quantification
$\exists z.\ P \wedge Q$	#z. P & Q	existential quantification