

Mathematical Notation

Equation or Inequality	Set Notation	Interval Notation
$0 < x \leq 3$	$\{x \mid 0 < x \leq 3\}$	$(0, 3]$
$y \geq -5$	$\{y: y \geq -5\}$	$[-5, +\infty)$
$z < -1$ or $z \geq 3$	$\{z \mid z < -1$ or $z \geq 3\}$	$(-\infty, -1) \cup [3, +\infty)$
$x < 5$ or $x > 5$	$\{x: x \neq 5\}$	$(-\infty, 5) \cup (5, +\infty)$
Empty (null) set \emptyset	$\{ \}$	\emptyset
All Real Numbers \mathbb{R}	$\{x : x \in \mathbb{R}\}$ {All Real Numbers}	$(-\infty, \infty)$