


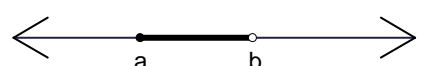
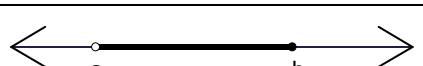
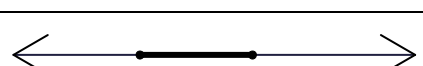

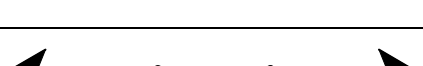
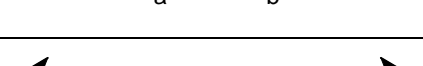
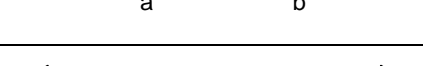
Table of Simple Inequalities

Inequality	Equivalent Inequality	Interval Notation	Graph
$x < a$	$a > x$	$(-\infty, a)$	
$x \leq a$	$a \geq x$	$(-\infty, a]$	
$x > b$	$b < x$	(b, ∞)	
$x \geq b$	$b \leq x$	$[b, \infty)$	
All Real Numbers	$x \in R$	$(-\infty, \infty)$	

Table of Special Compound Inequalities

Compound Inequality	Equivalent Inequality	Interval Notation	Graph
$x < 2$ and $x \geq 5$	$x \geq 5$ and $x < 2$	\emptyset (empty set)	
$x > 2$ or $x \leq 5$	$x \leq 5$ or $x > 2$	$(-\infty, \infty)$	
$x > 2$ and $x \geq 5$	$x \geq 5$	$[5, \infty)$	
$x > 2$ or $x \geq 5$	$x > 2$	$(2, \infty)$	

Table of Compound Inequalities

Compound Inequality	Equivalent Inequality	Interval Notation	Graph
$a < x < b$	$x < b$ and $x > a$	(a, b)	
$a \leq x < b$	$x < b$ and $x \geq a$	$[a, b)$	
$a < x \leq b$	$x \leq b$ and $x > a$	$(a, b]$	
$a \leq x \leq b$	$x \leq b$ and $x \geq a$	$[a, b]$	
$x > b$ or $x < a$	$x < a$ or $x > b$	$(-\infty, a) \cup (b, \infty)$	
$x \geq b$ or $x < a$	$x < a$ or $x \geq b$	$(-\infty, a) \cup [b, \infty)$	
$x > b$ or $x \leq a$	$x \leq a$ or $x > b$	$(-\infty, a] \cup (b, \infty)$	
$x \geq b$ or $x \leq a$	$x \leq a$ or $x \geq b$	$(-\infty, a] \cup [b, \infty)$	
$x < a$ or $x > a$	$x > a$ or $x < a$	$(-\infty, a) \cup (a, \infty)$	