



Function Domain/Range Definition - Inequality to Set Builder (Without Union)

1 What set describes the domain of this inequality? $-10 \leq X < -5$

A $\{X \in \mathbb{R} \mid -10 < X < -5\}$

B $\{X \in \mathbb{R} \mid -10 \leq X < -5\}$

2 What set describes the domain of this inequality?

$$2 < X$$

A	B
$\{X \in \mathbb{R} \mid 2 < X\}$	$\{X \in \mathbb{R} \mid 2 \leq X\}$

3 What set describes the range of this inequality?

$$Y \leq 4$$

A	B
$\{Y \in \mathbb{R} \mid Y \leq 4\}$	$\{Y \in \mathbb{R} \mid Y < 4\}$

4 What set describes the range of this inequality? $-1 < Y < 4$

A $\{Y \in \mathbb{R} \mid -1 \leq Y\}$

B $\{Y \in \mathbb{R} \mid -1 < Y < 4\}$

5 What set describes the range of this inequality?

$$Y \leq 7$$

A	B
$\{Y \in \mathbb{R} \mid Y \leq 7\}$	$\{Y \in \mathbb{R} \mid Y < 7\}$

6 What set describes the range of this inequality? $-4 < Y < 7$

A $\{Y \in \mathbb{R} \mid -4 \leq Y < 7\}$

B $\{Y \in \mathbb{R} \mid -4 < Y < 7\}$

7 What set describes the range of this inequality?

$$-8 < Y$$

A	B
$\{Y \in \mathbb{R} \mid -8 < Y\}$	$\{Y \in \mathbb{R} \mid -8 \leq Y\}$

8 What set describes the domain of this inequality?

$$X \leq 9$$

A	B
$\{X \in \mathbb{R} \mid X \leq 9\}$	$\{X \in \mathbb{R} \mid X < 9\}$