



Function Domain/Range Definition - Inequality to Set Builder (With Union)

1 Which set describes the range of this inequality? $Y < -3$ or $1 \leq Y$

A $\{Y \in \mathbb{R} \mid -3 < Y < 3$ or $-1 \leq Y \leq 1\}$

B $\{Y \in \mathbb{R} \mid Y < -3$ or $1 \leq Y\}$

2 Which set describes the range of this inequality? $Y \leq 7$ or $8 < Y$

A $\{Y \in \mathbb{R} \mid -6 < Y < 7$ or $-8 < Y < 8\}$

B $\{Y \in \mathbb{R} \mid Y \leq 7$ or $8 < Y\}$

3 Which set describes the range of this inequality?

$-4 < Y \leq 6$ or $8 < Y < 10$

A $\{Y \in \mathbb{R} \mid -4 \leq Y \leq 6$ or $8 \leq Y\}$

B $\{Y \in \mathbb{R} \mid -4 < Y \leq 6$ or $8 < Y < 10\}$

4 Which set describes the range of this inequality?

$-3 \leq Y \leq 1$ or $5 < Y < 9$

A $\{Y \in \mathbb{R} \mid -3 \leq Y \leq 1$ or $5 < Y < 9\}$

B $\{Y \in \mathbb{R} \mid -3 < Y < 1$ or $5 \leq Y \leq 9\}$

5 Which set describes the domain of this inequality? $X < 7$ or $9 \leq X$

A $\{X \in \mathbb{R} \mid X < 7$ or $9 \leq X\}$

B $\{X \in \mathbb{R} \mid -7 < X < 7$ or $-9 \leq X \leq 9\}$

6 Which set describes the domain of this inequality?

$-9 < X \leq 3$ or $4 \leq X < 10$

A $\{X \in \mathbb{R} \mid -9 < X \leq 3$ or $4 \leq X < 10\}$

B $\{X \in \mathbb{R} \mid -9 < X < 3$ or $4 \leq X\}$

7 Which set describes the range of this inequality?

$Y < 0$ or $0 < Y < 6$

A $\{Y \in \mathbb{R} \mid Y < 0$ or $0 < Y < 6\}$

B $\{Y \in \mathbb{R} \mid Y < 0$ or $0 \leq Y\}$

8 Which set describes the domain of this inequality? $X \leq 7$ or $8 < X$

A $\{X \in \mathbb{R} \mid X < 7$ or $-8 < X < 8\}$

B $\{X \in \mathbb{R} \mid X \leq 7$ or $8 < X\}$