



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

1 Which set describes the range of this interval? $(-\infty, 5] \cup (7, 10)$

A $\{Y \in \mathbb{R} \mid -7 \leq Y < 5 \text{ or } 7 \leq Y \leq 10\}$

B $\{Y \in \mathbb{R} \mid Y \leq 5 \text{ or } 7 < Y < 10\}$

2 Which set describes the range of this interval? $(-\infty, 3] \cup (4, 7)$

A $\{Y \in \mathbb{R} \mid Y \leq 3 \text{ or } 4 < Y < 7\}$

B $\{Y \in \mathbb{R} \mid -3 \leq Y \leq 3 \text{ or } 4 \leq Y \leq 7\}$

3 Which set describes the domain of this interval?

$(-\infty, -4] \cup [-3, \infty)$

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

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

4 Which set describes the range of this interval? $(-\infty, 3) \cup (4, \infty)$

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

B $\{Y \in \mathbb{R} \mid Y < 3 \text{ or } 4 < Y\}$

5 Which set describes the range of this interval? $(-3, 6] \cup (8, 10)$

A $\{Y \in \mathbb{R} \mid -3 < Y < 6 \text{ or } 8 \leq Y < 10\}$

B $\{Y \in \mathbb{R} \mid -3 < Y \leq 6 \text{ or } 8 < Y < 10\}$

6 Which set describes the domain of this interval? $(-\infty, 4) \cup [5, 10)$

A $\{X \in \mathbb{R} \mid X < 4 \text{ or } 5 \leq X < 10\}$

B $\{X \in \mathbb{R} \mid -4 < X < 4 \text{ or } 5 < X < 10\}$

7 Which set describes the range of this interval? $(-2, 3) \cup [5, \infty)$

A $\{Y \in \mathbb{R} \mid -2 \leq Y \leq 3 \text{ or } 5 \leq Y\}$

B $\{Y \in \mathbb{R} \mid -2 < Y < 3 \text{ or } 5 \leq Y\}$

8 Which set describes the range of this interval? $(-\infty, 7] \cup (8, 10)$

A $\{Y \in \mathbb{R} \mid -7 \leq Y \leq 7 \text{ or } 8 < Y \leq 10\}$

B $\{Y \in \mathbb{R} \mid Y \leq 7 \text{ or } 8 < Y < 10\}$