



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

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|---|---|--|---|
| <p>1 What interval describes this domain?</p> <p>$-9 < X \leq -1$ or $1 \leq X \leq 8$</p> | <p>2 What interval describes this range?</p> <p>$Y < -1$ or $0 \leq Y \leq 3$</p> | | |
| <p>A</p> <p>$(-9, -1] \cup [1, 8]$</p> | <p>B</p> <p>$(-9, -1) \cup (1, 8)$</p> | <p>A</p> <p>$[-9, -1) \cup (0, 3]$</p> | <p>B</p> <p>$(-\infty, -1) \cup [0, 3]$</p> |
| <p>3 What interval describes this domain?</p> <p>$X \leq 4$ or $5 \leq X$</p> | <p>4 What interval describes this range?</p> <p>$3 < Y \leq 6$ or $7 \leq Y \leq 10$</p> | | |
| <p>A</p> <p>$(-\infty, 4] \cup [5, \infty)$</p> | <p>B</p> <p>$[-4, 4] \cup (5, \infty)$</p> | <p>A</p> <p>$(3, 6] \cup [7, 10]$</p> | <p>B</p> <p>$(3, 6] \cup (7, 10)$</p> |
| <p>5 What interval describes this domain?</p> <p>$-1 \leq X < 2$ or $2 < X$</p> | <p>6 What interval describes this domain?</p> <p>$X < 7$ or $11 < X$</p> | | |
| <p>A</p> <p>$[-1, 2) \cup (2, \infty)$</p> | <p>B</p> <p>$(-1, 2) \cup (-2, 2)$</p> | <p>A</p> <p>$(-7, 7) \cup (11, \infty)$</p> | <p>B</p> <p>$(-\infty, 7) \cup (11, \infty)$</p> |
| <p>7 What interval describes this range?</p> <p>$Y < -2$ or $0 < Y < 4$</p> | <p>8 What interval describes this domain?</p> <p>$X \leq 7$ or $8 \leq X$</p> | | |
| <p>A</p> <p>$(-2, 2) \cup [0, 4]$</p> | <p>B</p> <p>$(-\infty, -2) \cup (0, 4)$</p> | <p>A</p> <p>$(-\infty, 7] \cup [-8, 8]$</p> | <p>B</p> <p>$(-\infty, 7] \cup [8, \infty)$</p> |