



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

1 What range does this inequality describe?

$$Y < 7 \text{ or } 11 \leq Y < 10$$

A All real numbers less than 7 OR greater than or equal to 11 and less than 10

B All real numbers greater than -7 and less than 7 OR greater than 10 and less than 11

2 What range does this inequality describe?

$$-7 \leq Y < 6 \text{ or } 8 < Y \leq 10$$

A All real numbers greater than or equal to -7 and less than or equal to 6 OR greater than 8 and less than or equal to 10

B All real numbers greater than or equal to -7 and less than 6 OR greater than 8 and less than or equal to 10

3 What range does this inequality describe?

$$-10 \leq Y \leq 7 \text{ or } 8 \leq Y \leq 10$$

A All real numbers greater than or equal to -10 and less than or equal to 7 OR greater than or equal to 8 and less than or equal to 10

B All real numbers greater than -10 and less than 7 OR greater than 8 and less than 10

4 What range does this inequality describe?

$$Y < 3 \text{ or } 4 \leq Y \leq 10$$

A All real numbers greater than -3 and less than 3 OR greater than 4 and less than or equal to 10

B All real numbers less than 3 OR greater than or equal to 4 and less than or equal to 10

5 What range does this inequality describe?  $Y \leq 7 \text{ or } 8 \leq Y$

A All real numbers greater than or equal to -7 and less than or equal to 7 OR greater than or equal to -8 and less than or equal to 8

B All real numbers less than or equal to 7 OR greater than or equal to 8

6 What domain does this inequality describe?

$$-9 < X \leq 6 \text{ or } 8 < X$$

A All real numbers greater than -9 and less than or equal to 6 OR greater than 8 and less than 10

B All real numbers greater than -9 and less than or equal to 6 OR greater than 8 and less than 10

7 What range does this inequality describe?

$$1 < Y < 4 \text{ or } 4 < Y < 8$$

A All real numbers greater than or equal to 1 and less than or equal to 4 OR greater than or equal to 4 and less than 8

B All real numbers greater than 1 and less than 4 OR greater than 4 and less than 8

8 What range does this inequality describe?

$$Y < 7 \text{ or } 9 < Y \leq 10$$

A All real numbers less than 7 OR greater than 9 and less than or equal to 10

B All real numbers less than or equal to 7 OR greater than or equal to 9 and less than or equal to 10