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

1 What range does this inequality describe?

$$\{Y \in \mathbb{R} | Y < 5 \text{ or } 8 \leq Y\}$$

A All real numbers less than 5 OR greater than or equal to 8

B All real numbers greater than -5 and less than 5 OR greater than 8 and less than or equal to 10

2 What range does this inequality describe?

$$\{Y \in \mathbb{R} | Y \leq 7 \text{ or } 8 < Y\}$$

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

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

3 What domain does this inequality describe?

$$\{X \in \mathbb{R} | X \leq 7 \text{ or } 8 \leq X\}$$

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

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

4 What domain does this inequality describe?

$$\{X \in \mathbb{R} | -8 < X \leq 1 \text{ or } 4 \leq X\}$$

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

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

5 What range does this inequality describe?

$$\{Y \in \mathbb{Z} | Y < 0 \text{ or } 4 \leq Y < 10\}$$

A All integers less than 0 OR greater than or equal to 4 and less than 10

B All integers greater than or equal to -5 and less than or equal to 0 OR greater than 4 and less than

6 What range does this inequality describe?

$$\{Y \in \mathbb{Z} | Y \leq -3 \text{ or } -2 < Y < 4\}$$

A All integers greater than or equal to -7 and less than or equal to -3 OR greater than or equal to -2

B All integers less than or equal to -3 OR greater than -2 and less than 4

7 What range does this inequality describe?

$$\{Y \in \mathbb{R} | -6 \leq Y < 2 \text{ or } 3 \leq Y\}$$

A All real numbers greater than or equal to -6 and less than 2 OR greater than or equal to 3

B All real numbers greater than or equal to -6 and less than or equal to 2 OR greater than or equal to

8 What range does this inequality describe?

$$\{Y \in \mathbb{Z} | -5 < Y \leq -1 \text{ or } 2 < Y\}$$

A All integers greater than or equal to -5 and less than -1 OR greater than -2 and less than 2

B All integers greater than -5 and less than or equal to -1 OR greater than 2