mobius

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

1 What domain does this inequality describe?

$$\{X \in \mathbb{Z} | X < 9 \text{ or } 10 < X \leq 19\}$$

A   All integers less than or equal to 9 OR greater than 10 and less than 19

B   All integers less than 9 OR greater than 10 and less than or equal to 19

2 What range does this inequality describe?

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

A   All integers less than 2 OR greater than 5

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

3 What range does this inequality describe?

$$\{Y \in \mathbb{Z} | -2 \leq Y < 8 \text{ or } 8 < Y \leq 17\}$$

A   All integers less than 8 OR greater than or equal to 8

B   All integers greater than or equal to -2 and less than 8 OR greater than 8 and less than or equal to

4 What range does this inequality describe?

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

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

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

5 What range does this inequality describe?

$$\{Y \in \mathbb{R} | -5 < Y < 9 \text{ or } 9 < Y\}$$

A   All real numbers greater than -5 and less than or equal to 9 OR greater than 9

B   All real numbers greater than -5 and less than 9 OR greater than 9

6 What range does this inequality describe?

$$\{Y \in \mathbb{R} | 4 < Y < 9 \text{ or } 9 < Y\}$$

A   All real numbers greater than 4 and less than 9 OR greater than or equal to 9

B   All real numbers greater than 4 and less than 9 OR greater than 9

7 What range does this inequality describe?

$$\{Y \in \mathbb{Z} | -9 < Y < 9 \text{ or } 12 \leq Y \leq 16\}$$

A   All integers greater than -9 and less than 9 OR greater than or equal to 12 and less than or equal

B   All integers greater than -9 and less than 9 OR greater than or equal to 12

8 What range does this inequality describe?

$$\{Y \in \mathbb{R} | Y \leq 8 \text{ or } 11 < Y\}$$

A   All real numbers less than or equal to 8 OR greater than 11

B   All real numbers less than 8 OR greater than or equal to 11