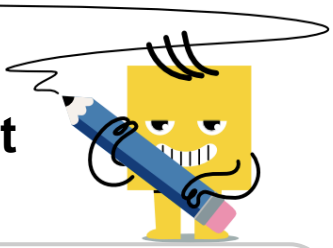
Name

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



1 What inequality describes domain on this number line?

$$\{X \in \mathbb{R} | X \leq 6 \text{ or } 8 < X < 11\}$$

A $X < 6 \text{ or } 8 \leq X$

B $X \leq 6 \text{ or } 8 < X < 11$

2 What inequality describes range on this number line?

$$\{Y \in \mathbb{R} | Y < 1 \text{ or } 3 < Y < 12\}$$

A $Y < 1 \text{ or } 3 \leq Y < 12$

B $Y < 1 \text{ or } 3 < Y < 12$

3 What inequality describes range on this number line?

$$\{Y \in \mathbb{R} | Y < 6 \text{ or } 8 < Y\}$$

A $Y < 6 \text{ or } 8 < Y$

B $Y < 6 \text{ or } 8 \leq Y$

4 What inequality describes domain on this number line?

$$\{X \in \mathbb{R} | 0 < X < 6 \text{ or } 10 \leq X < 14\}$$

A $X < 6 \text{ or } 10 \leq X < 14$

B $0 < X < 6 \text{ or } 10 \leq X < 14$

5 What inequality describes range on this number line?

$$\{Y \in \mathbb{R} | Y < 5 \text{ or } 6 < Y\}$$

A $Y < 5 \text{ or } 6 < Y$

B $Y \leq 5 \text{ or } 6 < Y \leq 11$

6 What inequality describes range on this number line?

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

A $-1 \leq Y < 5 \text{ or } 5 < Y$

B $Y \leq 5 \text{ or } 5 \leq Y$

7 What inequality describes domain on this number line?

$$\{X \in \mathbb{R} | X \leq -3 \text{ or } -2 \leq X\}$$

A $X \leq -3 \text{ or } -2 \leq X \leq 5$

B $X \leq -3 \text{ or } -2 \leq X$

8 What inequality describes range on this number line?

$$\{Y \in \mathbb{R} | Y \leq 6 \text{ or } 7 < Y\}$$

A $Y \leq 6 \text{ or } 7 < Y$

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