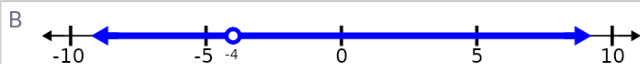
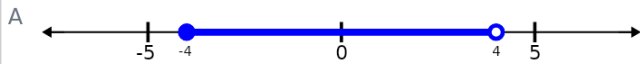


Determine restrictions on rational expressions

1

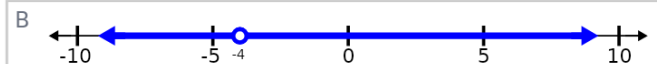
What number line shows the domain of this function?

$$f(x) = \frac{-2}{-1x - 4}$$


2

What number line shows the domain of this function?

$$f(x) = \frac{-1x - 3}{1x + 4}$$


3

What set describes the domain of this function?

$$f(x) = \frac{1x - 3}{-1x - 4}$$

A $\{X \in \mathbb{R} | X < -4 \text{ or } -4 < X\}$

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

4

What does this expression simplify to?

$$\frac{w^2 + 2w + 1}{w + 1}$$

A $(w + 1)$

B $(w - 1)$

C $(w + 1)^2$

5

What set describes the domain of this function?

$$f(x) = \frac{-1x - 3}{-1x^2 + 1x + 2}$$

A $\{X \in \mathbb{R} | -1 < X < 1 \text{ or } -1 \leq X \leq 2 \text{ or } -2 < X < 2\}$

B $\{X \in \mathbb{R} | X < -1 \text{ or } -1 < X < 2 \text{ or } 2 < X\}$

6

What set describes the domain of this function?

$$f(x) = \frac{-3}{1x^2 - 10x - 11}$$

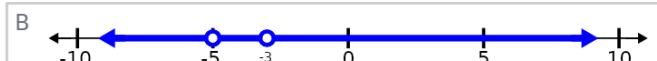
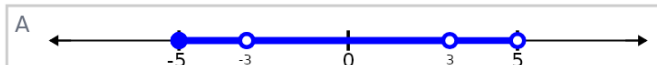
A $\{X \in \mathbb{R} | X < -1 \text{ or } -1 < X < 11 \text{ or } 11 < X\}$

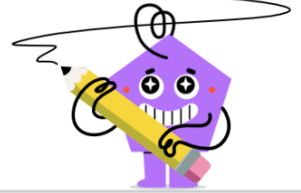
B $\{X \in \mathbb{R} | X \leq -1 \text{ or } -1 < X < 11 \text{ or } 11 \leq X\}$

7

What number line shows the domain of this function?

$$f(x) = \frac{-1x - 0}{1x^2 + 8x + 15}$$



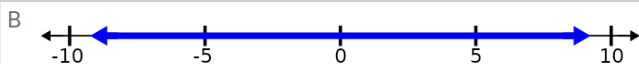
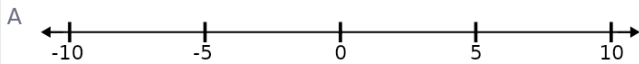


Determine restrictions on rational expressions

8

What number line shows the domain of this function?

$$f(x) = \frac{3}{-1x^2 + 3x - 8}$$

**9**

What set describes the domain of this function?

$$f(x) = \frac{-1x - 2}{3x^2 - 0x + 24}$$

A

$$\{X \in \mathbb{R} \mid \}$$

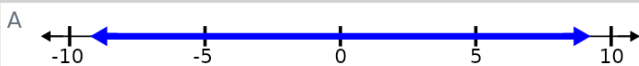
B

$$\{ \}$$

10

What number line shows the domain of this function?

$$f(x) = \frac{1x - 5}{4x^2 + 4x + 3}$$

**11**

What set describes the domain of this function?

$$f(x) = \frac{-1x + 2}{1x^2 - 1x - 6}$$

A

$$\{X \in \mathbb{R} \mid -2 \leq X < 1 \text{ or } -2 \leq X \leq 3 \text{ or } -3 < X < 3\}$$

B

$$\{X \in \mathbb{R} \mid X < -2 \text{ or } -2 < X < 3 \text{ or } 3 < X\}$$

12

What set describes the domain of this function?

$$f(x) = \frac{3}{-1x^2 + 1x + 6}$$

A

$$\{X \in \mathbb{R} \mid -2 < X < 2 \text{ or } -2 < X < 3 \text{ or } -3 < X < 3\}$$

B

$$\{X \in \mathbb{R} \mid X < -2 \text{ or } -2 < X < 3 \text{ or } 3 < X\}$$