

31. Determine the domain of the function below.

$$f(x) = \frac{6}{25x^2 + 55x + 30}$$

- A. All Real numbers except  $x = a$  and  $x = b$ , where  $a \in [-1.63, -1.18]$  and  $b \in [-1.11, -0.83]$
  - B. All Real numbers.
  - C. All Real numbers except  $x = a$ , where  $a \in [-1.63, -1.18]$
  - D. All Real numbers except  $x = a$  and  $x = b$ , where  $a \in [-30.09, -29.89]$  and  $b \in [-25.05, -24.94]$
  - E. All Real numbers except  $x = a$ , where  $a \in [-30.09, -29.89]$
- 

32. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$4 + \frac{6}{7x + 9} = \frac{6}{-56x - 72}$$

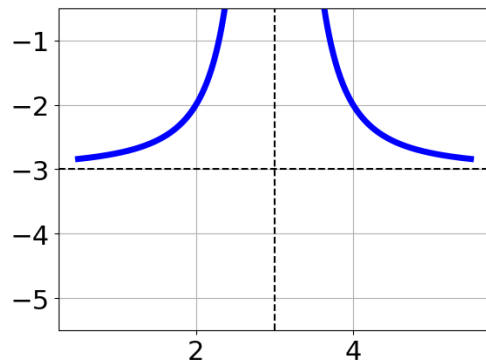
- A.  $x \in [-2.06, -1.39]$
  - B. All solutions lead to invalid or complex values in the equation.
  - C.  $x_1 \in [0.5, 1.26]$  and  $x_2 \in [-4, 0]$
  - D.  $x_1 \in [-1.31, -0.83]$  and  $x_2 \in [-4, 0]$
  - E.  $x \in [0.5, 1.26]$
- 

33. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{6x}{2x + 2} - \frac{6x^2}{10x^2 + 6x - 4} = \frac{6}{5x - 2}$$

- A.  $x \in [-0.66, -0.25]$
  - B.  $x_1 \in [1.18, 2.6]$  and  $x_2 \in [-1.3, -0.9]$
  - C.  $x \in [-0.06, 0.7]$
  - D.  $x_1 \in [1.18, 2.6]$  and  $x_2 \in [-0.7, 0.3]$
  - E. All solutions lead to invalid or complex values in the equation.
-

34. Choose the equation of the function graphed below.



A.  $f(x) = \frac{1}{x+3} + 2$

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

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

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

35. Choose the graph of the equation below.

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

