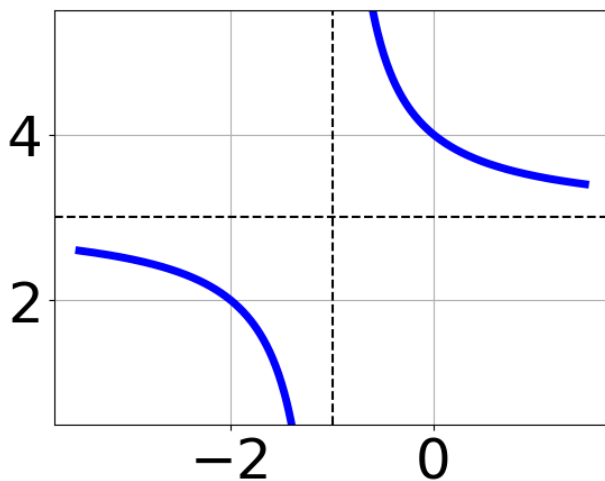


1. Choose the equation of the function graphed below.



- A. $f(x) = \frac{-1}{(x+1)^2} + 3$
- B. $f(x) = \frac{1}{(x-1)^2} + 3$
- C. $f(x) = \frac{1}{x-1} + 3$
- D. $f(x) = \frac{-1}{x+1} + 3$
- E. None of the above

-
2. Determine the domain of the function below.

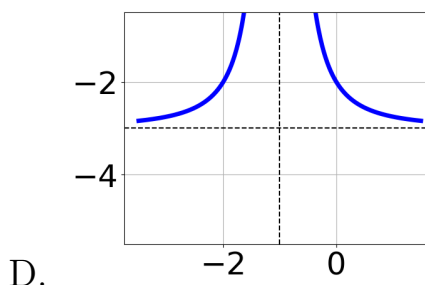
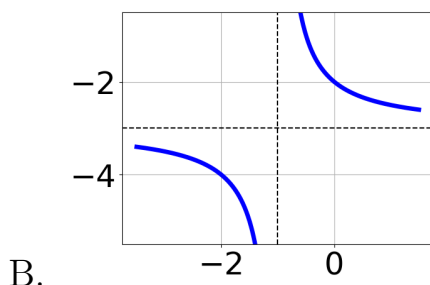
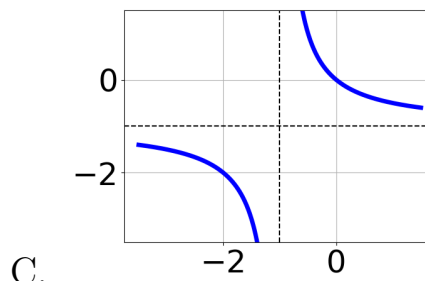
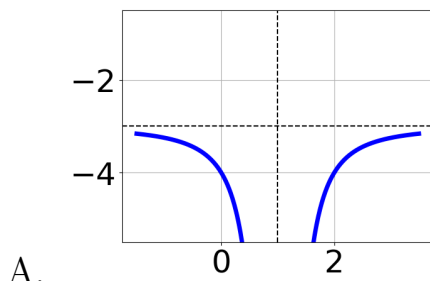
$$f(x) = \frac{3}{24x^2 - 50x + 25}$$

- A. All Real numbers.
- B. All Real numbers except $x = a$ and $x = b$, where $a \in [19.66, 20.11]$ and $b \in [29.89, 30.72]$
- C. All Real numbers except $x = a$ and $x = b$, where $a \in [0.81, 0.95]$ and $b \in [1.12, 1.42]$
- D. All Real numbers except $x = a$, where $a \in [0.81, 0.95]$

E. All Real numbers except $x = a$, where $a \in [19.66, 20.11]$

3. Choose the graph of the equation below.

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



E. None of the above.

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

$$\frac{6}{5x+3} + -7 = \frac{-5}{-20x-12}$$

A. $x_1 \in [-1.2, 0.1]$ and $x_2 \in [-1.2, 0.1]$

B. All solutions lead to invalid or complex values in the equation.

C. $x \in [0.7, 2]$

D. $x \in [-0.46, 1.54]$

E. $x_1 \in [-1.2, 0.1]$ and $x_2 \in [0, 1.2]$

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

$$\frac{4x}{4x-4} + \frac{-6x^2}{24x^2-48x+24} = \frac{-6}{6x-6}$$

- A. $x_1 \in [-1.58, -0.83]$ and $x_2 \in [1.11, 1.39]$
 - B. $x \in [0.83, 1.06]$
 - C. $x \in [1.06, 1.33]$
 - D. All solutions lead to invalid or complex values in the equation.
 - E. $x_1 \in [-1.58, -0.83]$ and $x_2 \in [0.9, 1.11]$
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