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

$$\frac{-7x}{7x-2}+\frac{-2x^2}{14x^2-53x+14}=\frac{6}{2x-7}$$

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

B. $x \in [0.34, 2.66]$

C. $x_1 \in [-2.45, -0.22]$ and $x_2 \in [0.17, 0.66]$

D. $x \in [1.22, 4.33]$

E. $x_1 \in [-2.45, -0.22]$ and $x_2 \in [0.47, 1.42]$

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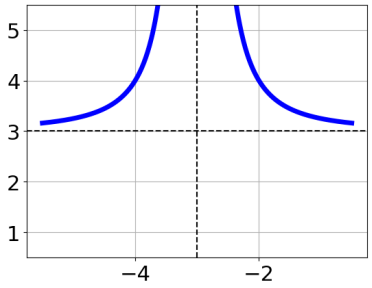
32. Choose the equation of the function graphed below.



A. $f(x)=\dfrac{1}{(x-3)^2}-1$

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

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

D. $f(x)=\dfrac{1}{x-3}-1$

E. None of the above

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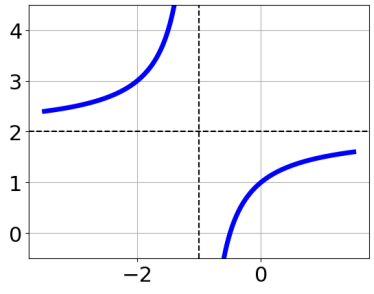
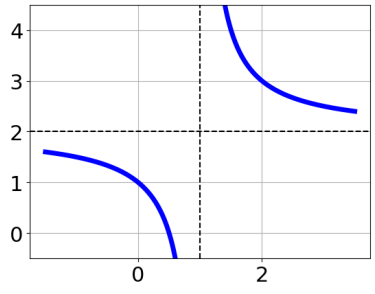
33. Choose the graph of the equation below.

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

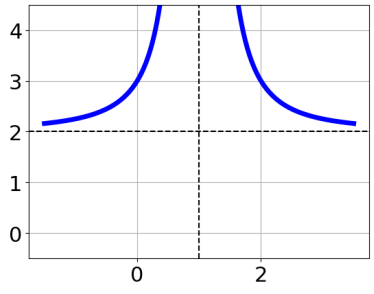
A.



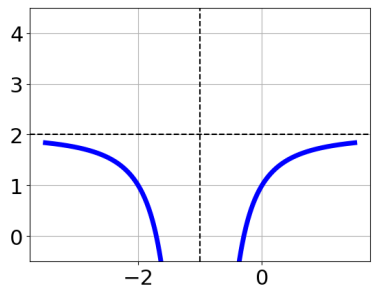
C.



B.



D.



E. None of the above.

34. Determine the domain of the function below.

$$f(x) = \frac{5}{16x^2 - 4x - 12}$$

A. All Real numbers except $x = a$ and $x = b$, where $a \in [-2.3, 0.6]$ and $b \in [-0.7, 3.2]$

B. All Real numbers except $x = a$, where $a \in [-13.9, -11.8]$

C. All Real numbers except $x = a$, where $a \in [-2.3, 0.6]$

D. All Real numbers except $x = a$ and $x = b$, where $a \in [-13.9, -11.8]$ and $b \in [15.9, 17.2]$

E. All Real numbers.

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

$$\frac{70}{-28x - 70} + 1 = \frac{70}{-28x - 70}$$

A. $x_1 \in [-4, -1]$ and $x_2 \in [-5, -1]$

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

C. $x \in [1, 4]$

D. $x \in [-3.5, -1.5]$

E. $x_1 \in [-4, -1]$ and $x_2 \in [1, 3]$