31. Determine the domain of the function below.

$$f(x) = \frac{3}{24x^2 + 40x + 16}$$

A. All Real numbers.

B. All Real numbers except $x = a$ and $x = b$, where $a \in [-24.24, -23.84]$ and $b \in [-16.09, -15.88]$

C. All Real numbers except $x = a$, where $a \in [-0.71, -0.63]$

D. All Real numbers except $x = a$ and $x = b$, where $a \in [-0.71, -0.63]$ and $b \in [-1.19, -0.78]$

E. All Real numbers except $x = a$, where $a \in [-24.24, -23.84]$

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

$$-5 - \frac{9}{2x - 5} = \frac{8}{4x - 10}$$

A. $x \in [-3.92, -3.31]$

B. $x_1 \in [-3.92, -3.31]$ and $x_2 \in [0, 3]$

C. $x_1 \in [0.74, 1.09]$ and $x_2 \in [0, 3]$

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

E. $x \in [0.82, 1.24]$

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

$$\frac{5x}{-3x + 3} - \frac{5x^2}{-21x^2 + 15x + 6} = -\frac{5}{7x + 2}$$

A. $x_1 \in [-0.9, 3.7]$ and $x_2 \in [-2, 4]$

B. $x_1 \in [-1.2, 0.8]$ and $x_2 \in [-2, 4]$

C. $x \in [-1.2, 0.8]$

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

E. $x \in [-0.9, 3.7]$

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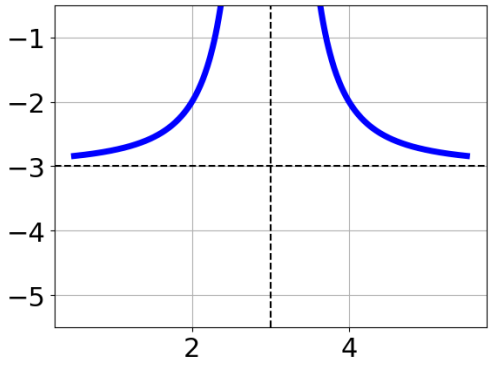
34. Choose the equation of the function graphed below.



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

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

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

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

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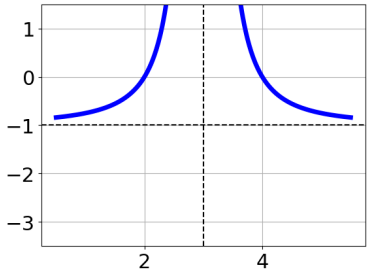
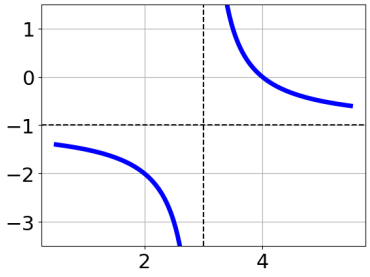
35. Choose the graph of the equation below.

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

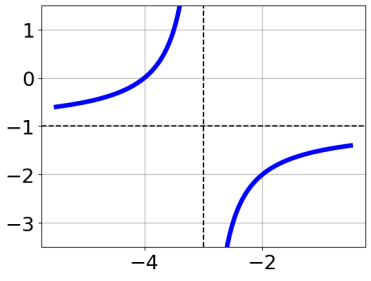
A.



C.



B.



D.