31. Determine the domain of the function below.

$$f(x) = \frac{4}{16x^2 - 44x + 30}$$

A. All Real numbers except $x = a$ and $x = b$, where $a \in [1.25, 1.35]$ and $b \in [1.33, 1.76]$

B. All Real numbers except $x = a$, where $a \in [19.96, 20.17]$

C. All Real numbers except $x = a$ and $x = b$, where $a \in [19.96, 20.17]$ and $b \in [23.96, 24.12]$

D. All Real numbers.

E. All Real numbers except $x = a$, where $a \in [1.25, 1.35]$
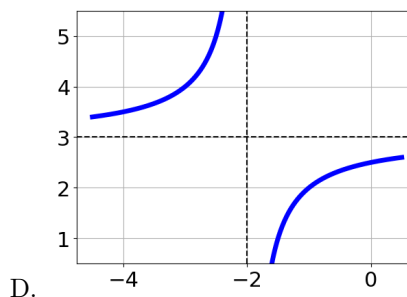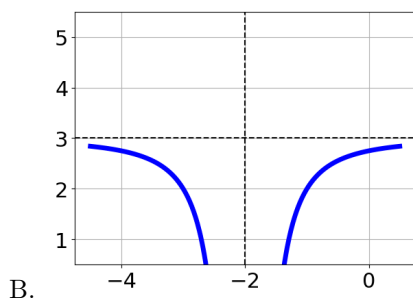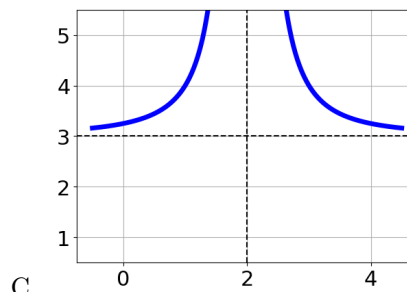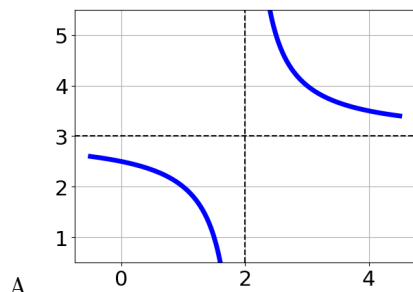
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32. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{27}{27x - 63} + 1 = \frac{27}{27x - 63}$$

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

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

C. $x \in [2.33, 4.33]$

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

E. $x \in [-5, -1]$

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33. Choose the graph of the equation below.

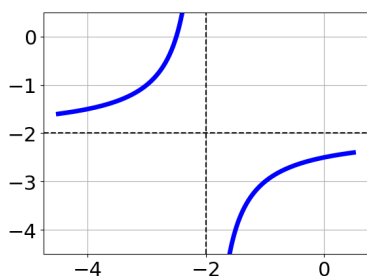$$f(x) = \frac{-1}{(x+2)^2} + 3$$

A.

C.

B.

D.

E. None of the above.

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

$$\frac{-5x}{7x+4} + \frac{-4x^2}{-14x^2+6x+8} = \frac{6}{-2x+2}$$

A. $x \in [-1.9, -0.2]$

B. $x_1 \in [7, 10.5]$ and $x_2 \in [-0.45, -0.4]$

C. $x \in [0.7, 5.1]$

D. $x_1 \in [7, 10.5]$ and $x_2 \in [-0.72, -0.51]$

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

35. Choose the equation of the function graphed below.

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

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

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

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

E. None of the above