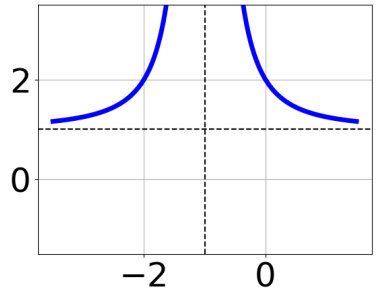
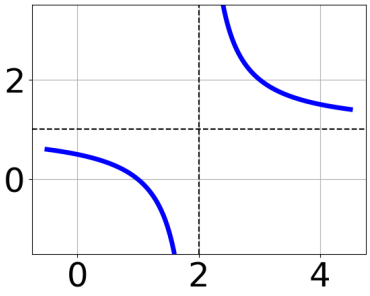
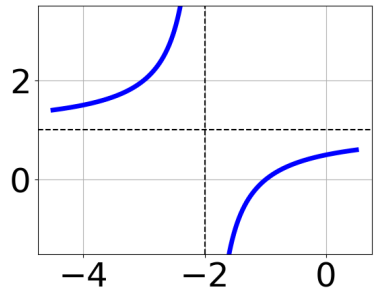
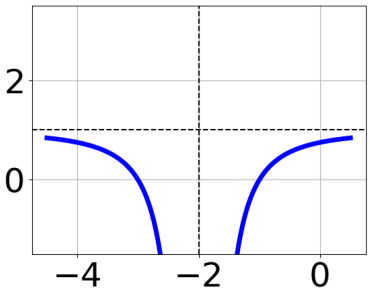
1. Choose the graph of the equation below.

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

A. 

C. 

B. 

D. 

E. None of the above.

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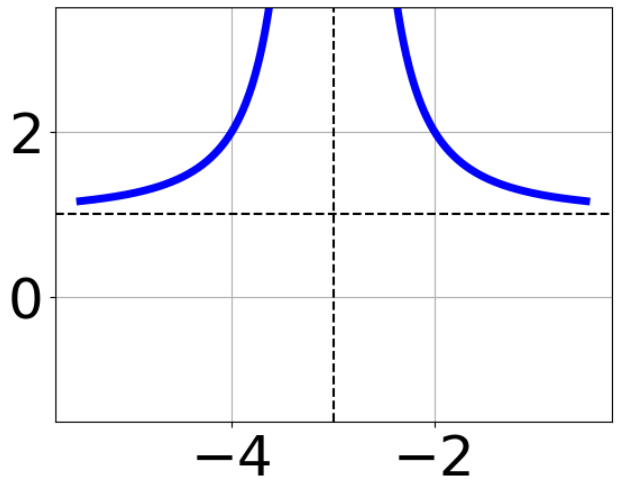
2. Choose the equation of the function graphed below.



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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3. Determine the domain of the function below.

$$f(x) = \frac{3}{36x^2 - 36}$$

A. All Real numbers except $x = a$ and $x = b$, where $a \in [-36.2, -35.1]$ and $b \in [35.1, 36.3]$

B. All Real numbers except $x = a$, where $a \in [-36.2, -35.1]$

C. All Real numbers.

D. All Real numbers except $x = a$, where $a \in [-1.4, 0.6]$

E. All Real numbers except $x = a$ and $x = b$, where $a \in [-1.4, 0.6]$ and $b \in [0.2, 3.6]$

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

$$\frac{-3}{2x+8} + 5 = \frac{7}{-16x - 64}$$

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

B. $x_1 \in [-8, -3]$ and $x_2 \in [-5, 0]$

C. $x_1 \in [-8, -3]$ and $x_2 \in [2, 7]$

D. $x \in [2, 7]$

E. $x \in [-3.79, -1.79]$

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

$$\frac{5x}{3x-3} + \frac{-4x^2}{-12x^2-9x+21} = \frac{4}{-4x-7}$$

A. $x_1 \in [-0.87, 1.07]$ and $x_2 \in [-0.4, 2.4]$

B. $x_1 \in [-0.87, 1.07]$ and $x_2 \in [-6, -1.4]$

C. $x \in [-2.56, -1.85]$

D. $x \in [-1.83, -0.66]$

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