1. Solve the rational equation below.

$$\frac{7x}{3x+7} + \frac{-6x^2}{15x^2+44x+21} = \frac{-6}{5x+3}$$

2. Determine the domain of the function below.

$$f(x) = \frac{6}{15x^2 + 43x + 30}$$

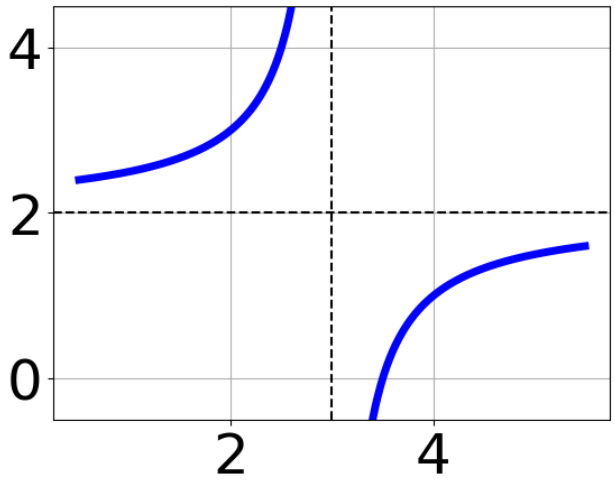
3. Solve the rational equation below.

$$\frac{63}{-56x+28}+1=\frac{63}{-56x+28}$$

4. Solve the rational equation below.

$$\frac{2}{-6x+9} + 3 = \frac{4}{18x-27}$$

5. Write an equation that can represent the function graphed below.



6. Sketch a graph that represents the equation below.

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

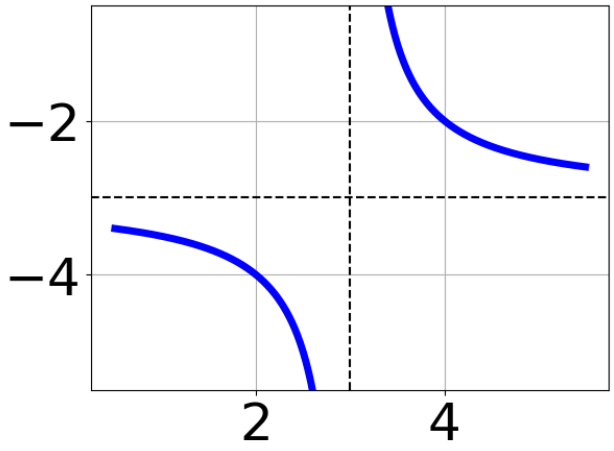
7. Determine the domain of the function below.

$$f(x) = \frac{3}{20x^2 + 3x - 9}$$

8. Solve the rational equation below.

$$\frac{-5x}{-3x-5} + \frac{-4x^2}{-9x^2-24x-15} = \frac{5}{3x+3}$$

9. Write an equation that can represent the function graphed below.



10. Sketch a graph that represents the equation below.

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