1. Determine the horizontal and/or oblique asymptotes in the rational function below.

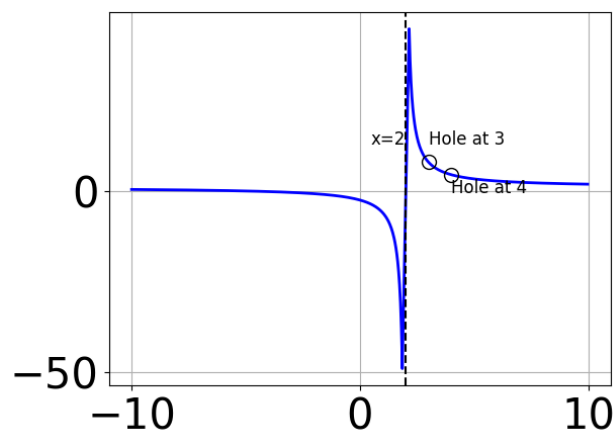$$f(x) = \frac{3x^2 - 13x + 12}{12x^3 - 25x^2 - 18x + 40}$$

2. Determine the horizontal and/or oblique asymptotes in the rational function below.

$$f(x) = \frac{12x^3 - 13x^2 - 19x + 20}{-15x^3 + 52x^2 - 48x + 16}$$
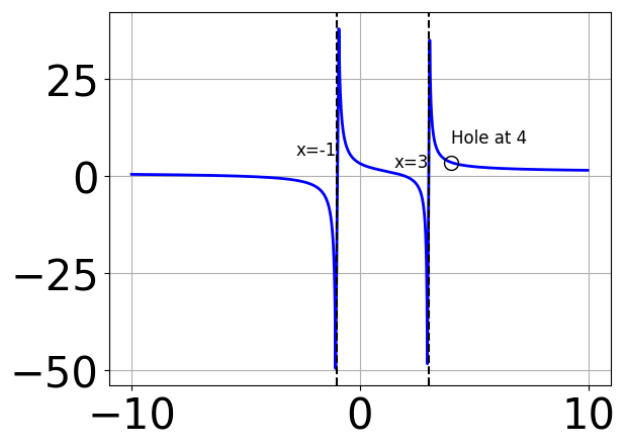
3. Determine the vertical asymptotes and holes in the rational function below.
$$f(x) = \frac{12x^3 + 55x^2 + 18x - 40}{12x^2 - 5x - 25}$$

4. Write an equation of a function that *could* be represented by the graph below. Explain why your function could represent the graph.

5. Write an equation of a function that *could* be represented by the graph below. Explain why your function could represent the graph.

6. Determine the horizontal and/or oblique asymptotes in the rational function below.

$$f(x) = \frac{6x^3 + 7x^2 - 43x - 30}{2x^2 + x - 15}$$

7. Determine the vertical asymptotes and holes in the rational function below.

$$f(x) = \frac{4x^3 + 12x^2 - 7x - 30}{6x^2 - x - 12}$$

8. Determine the vertical asymptotes and holes in the rational function below.

$$f(x) = \frac{6x^3 - 31x^2 + 53x - 30}{12x^2 - 35x + 25}$$

9. Determine the vertical asymptotes and holes in the rational function below.

$$f(x) = \frac{8x^3 + 6x^2 - 17x - 15}{6x^2 - 17x + 12}$$

10. Determine the horizontal and/or oblique asymptotes in the rational function below.

$$f(x) = \frac{6x^3 + x^2 - 27x + 20}{2x^2 + 11x + 15}$$