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

$$f(x) = \frac{9x^3 - 9x^2 - 88x - 80}{6x^3 + x^2 + 8x + 80}$$
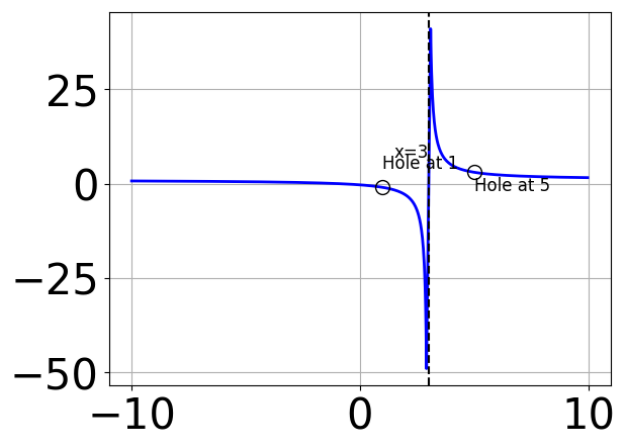
2. Determine the horizontal and/or oblique asymptotes in the rational function below.

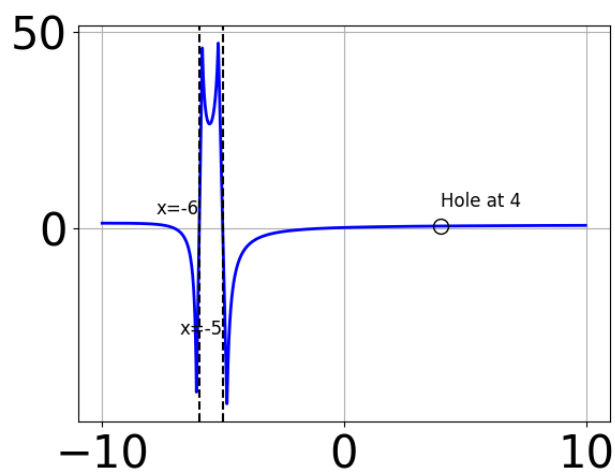$$f(x) = \frac{20x^3 - 33x^2 - 2x + 15}{20x^3 - 62x^2 + 52x - 15}$$

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

$$f(x) = \frac{8x^3 - 10x^2 - 9x + 9}{6x^2 - 5x - 6}$$

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.

$$f(x) = \frac{8x^3 - 10x^2 - 73x - 60}{4x^2 + 21x + 20}$$

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

$$f(x) = \frac{12x^3 - 47x^2 + 60x - 25}{9x^2 - 27x + 20}$$

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

$$f(x) = \frac{9x^3 + 36x^2 - 25x - 100}{12x^2 + 29x + 15}$$

9. Determine the vertical asymptotes and holes in the rational function below.
$$f(x) = \frac{8x^3 - 46x^2 + 81x - 45}{16x^2 - 25}$$

10. Determine the horizontal and/or oblique asymptotes in the rational function below.
$$f(x) = \frac{6x^3 - 35x^2 + 34x + 40}{3x^2 + 17x + 10}$$