

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

$$f(x) = \frac{12x^3 - 53x^2 + 57x - 18}{-12x^3 + 7x^2 + 9x - 18}$$

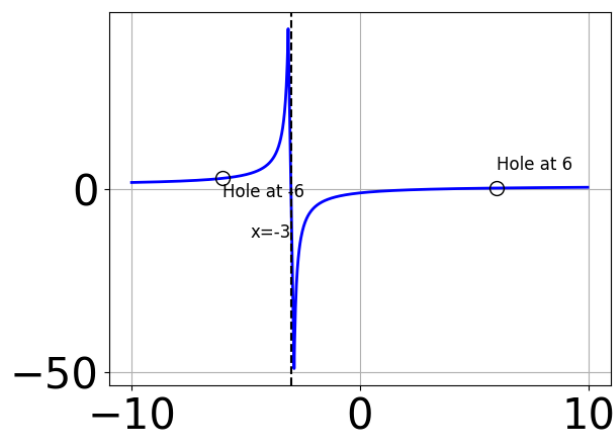
2. Determine the horizontal and/or oblique asymptotes in the rational function below.

$$f(x) = \frac{9x^3 + 24x^2 - 29x - 60}{-6x^3 + 32x^2 + 46x - 60}$$

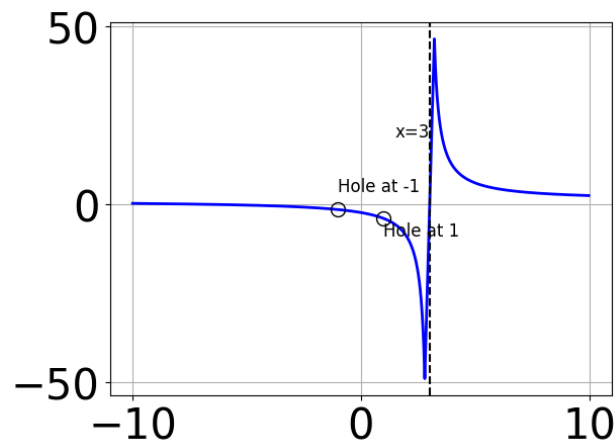
3. Determine the vertical asymptotes and holes in the rational function below.

$$f(x) = \frac{6x^3 - 1x^2 - 47x + 30}{6x^2 - 11x - 10}$$

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.

$$f(x) = \frac{6x^3 - 29x^2 + 23x + 30}{3x^2 - 13x - 10}$$

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

$$f(x) = \frac{12x^3 - 59x^2 + 95x - 50}{9x^2 - 25}$$

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

$$f(x) = \frac{9x^3 + 15x^2 - 2x - 8}{9x^2 - 18x + 8}$$

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

$$f(x) = \frac{6x^3 + 49x^2 + 125x + 100}{9x^2 + 27x + 20}$$

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

$$f(x) = \frac{6x^3 + 13x^2 - 9x - 10}{3x^2 - 10x - 8}$$