

Find all points of discontinuity and classify them as a hole or vertical asymptotes. Find the horizontal asymptotes.

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

$$f(x) = \frac{x^2-4}{2x-4}$$

$$f(x) = \frac{x^2-5x-24}{x^3-9x}$$

$$f(x) = \frac{x^2-4x+4}{x^4+4}$$