

19 Horizontal Asymptotes: The degree of the numerator is greater than the degree of the denominator. Therefore, there is no horizontal asymptote.

Vertical Asymptotes: Find the zeros of the denominator, $x + 3 = 0 \Rightarrow x = -3$. But $x = -3$ is not a vertical asymptote since -3 is a zero of the numerator and $f(x) = x - 3$, $x \neq -3$. There are no vertical asymptotes.