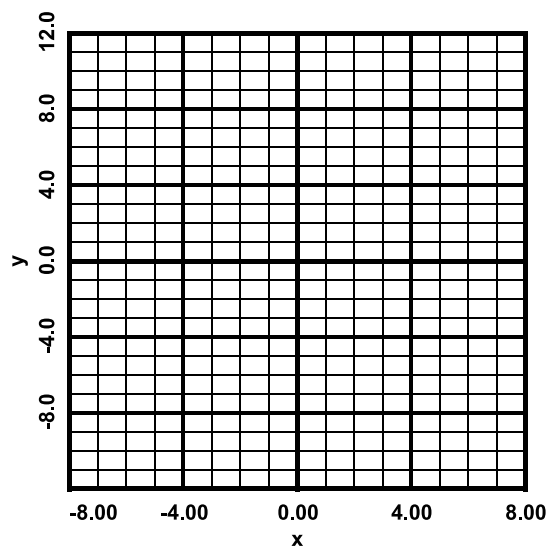


AP CALCULUS AB

1) For

$$f(x) = \frac{x^3 + 2x^2 - 11x - 12}{x^2 + x - 2},$$

- Calculate the end-behavior function $E(x)$.
Use long division.
- Find the vertical asymptotes of $y = f(x)$.
- Graph $y = f(x)$, $y = E(x)$ and the vertical asymptotes on the grid provided.



END – BEHAVIOR FUNCTIONS OF RATIONAL FUNCTIONS

2) For

$$f(x) = \frac{x^4 + 9x^3 + 3x^2 - 89x - 84}{x - 2},$$

- Calculate the end-behavior function $E(x)$.
Use synthetic division.
- Find the vertical asymptote of $y = f(x)$.
- Graph $y = f(x)$, $y = E(x)$ and the vertical asymptote on the grid provided.

