

1989 AB4

Let f be the function given by $f(x) = \frac{x}{\sqrt{x^2 - 4}}$.

- (a) Find the domain of f .
- (b) Write an equation for each vertical asymptote to the graph of f .
- (c) Write an equation for each horizontal asymptote to the graph of f .
- (d) Find $f'(x)$.