1. Name the different types of asymptotes a function could have, and describe how to solve each one.

2. Find the horizontal asymptote(s) for the following functions.
   a. \( f(t) = \frac{t^2+2}{t^3+t^2-1} \)
   b. \( f(t) = \frac{t^2-1}{t^2-t-2} \)
   c. \( f(t) = \frac{1+2e^x}{1-e^x} \)
   d. \( f(t) = 4 \tan^{-1} 3t \)

3. Find the oblique asymptote for the following functions.
   a. \( f(x) = \frac{2x^2+6x-2}{x+1} \)
   b. \( f(x) = \frac{-3x^2+2}{x-1} \)
   c. \( f(x) = \frac{3x^3}{4x^2-8x} \)

4. Evaluate the following limits to see if they exist or are not defined.
   a. \( f(x) = \frac{2-5x}{x-3} \) for \( x = 3 \)
   b. \( f(x) = \frac{x}{(x^2-1)^2} \) for \( x = -1, 1 \)
   c. \( f(x) = \frac{x-2}{(x-1)^2(x-3)} \) for \( x = 1, 3 \)

5. Find the horizontal and vertical asymptotes for the following functions.
   a. \( f(x) = \frac{x^2-4x+3}{x^2-1} \)
   b. \( f(x) = \frac{x^2-5x+6}{2x^2-8} \)