1. Find the domain, x intercept and vertical asymptote of the function

\[ f(x) = \log_5(x - 4) \]  

2. Use the properties of logarithms to expand the expression as sum, difference or constant multiple of logarithm.

\[ \log\left(\frac{x^2 - 3x + 2}{\sqrt[5]{x^5}}\right) \]
3. Solve the logarithm equation.

\[ \log_4(2x + 1) - \log_4(2x - 1) = \frac{1}{2} \]  

(3)

4. If \( \log(x + 2) = 3 \) and \( \log(x - 2) = 4 \), find the value of

\[ f(x) = x^2 - 4 \]  

(4)