Problem 1: Calculate \( \lim_{x \to -2} \frac{x^2 - 4}{x^2 + 3x + 2} \).

Solution of problem 1:

Problem 2: Compute the derivative of the function \( f(x) = \frac{1}{x+1} \) using the definition of the derivative and find the equation of the tangent line to the graph of \( y = \frac{1}{x+1} \) at the point \( (0, 1) \).

Solution of problem 2: