Exercise 1

Find \( \lim_{x \to -1} \frac{\sqrt{x^2+8} - 3}{x+1} \)

Exercise 2

Let \( f(x) = \sqrt{x - 7} \); \( L = 4 \); \( x_0 = 23 \); \( \epsilon = 1 \). Give a value for \( \delta > 0 \) such that for all \( x \) satisfying \( |x - x_0| < \delta \) then the inequality \( |f(x) - L| < \epsilon \) holds.