1. Let \( f(x) = \frac{x^2 - 2x - 8}{x + 2} \), and let \( a = -2 \).

   a) Find the limit of \( f(x) \) as \( x \) approaches \( a \).

   Ans: ____________________  

   b) Find a continuous function \( g \) that agrees with \( f \) for \( x \neq a \).

   Ans: ____________________

2. Evaluate: \( \lim_{x \to \infty} (\sqrt{16x^2 + x - 4x}) \).

   Ans: ____________________  

   Ans: ____________________