1.) (15 pts.) Let \( f(x) = \frac{x^{21} - 1}{x^2 - 1} \). For what values of \( x \) is \( f \) continuous? Briefly explain. This is a writing exercise.

2.) (15 pts.) Use the Intermediate Value Theorem to prove that the equation \( x^3 = x + 8 \) has at least one solution. This is a writing exercise.
3.) (15 pts.) Give an $\epsilon/\delta$ proof that $\lim_{x \to 2} x^2 = 4$. This is a writing exercise.