ESP Quiz 3 (Kouba)

Please PRINT your name here : _____

This quiz is due next Tuesday at the beginning of ESP.

1.) (15 pts.) Let $f(x) = \dfrac{x^{21} - 1}{x^2 - 1}$. 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 ϵ/δ proof that $\lim\limits_{x \to 2} x^2 = 4$. This is a writing exercise.