HOMEWORK 16

1) Give an $\epsilon - \delta$ proof that $f(x) = 2x + 1$ is continuous at 3.

2) Give an $\epsilon - \delta$ proof that $\lim_{x \to -1} \frac{1}{2x+3} = 1$.

3) Let $f(x) = \frac{x^2-1}{(x-1)(x+3)}$. Find the value of $f(1)$ that makes f continuous at 1. Verify this with an $\epsilon - \delta$ proof.