Quiz 1 June 25, 2010

Show your work

1. (5 points) Solve the inequality \( \frac{x^2 + 4x - 5}{(x + 3)^2} \geq 0 \).

2. (5 points) Find the inverse function \( f^{-1}(x) \), given \( f(x) = \sqrt{1-x} \) and \( x \leq 1 \).

What is the domain of \( f^{-1} \)?

3. (5 points) Solve \( 3^x = 27^{2x-5} \).