MATH 271 – Summer 2016
Quiz 2
Thursday, July 21. Duration: 50 minutes

1. (*4 points*) Use the method of proof by contradiction to prove the following statement: "For all real numbers x, if x^2 is irrational then x is irrational."

2. (*4 points*) Use the Euclidean Algorithm to compute $\gcd(181, 123)$. Find integers x and y such that $\gcd(181, 123) = 181x + 123y$.

Name:_____ Id #:_____

3. (*7 points*)
Use mathematical induction to prove that $5^n - 4n - 1$ is divisible by 16 for all integers $n \geq 1$.