Claim 1. For consecutive numbers p, a prime number, and n^2 , a square number, $p = n^2 + 1$.

Proof. Suppose p, a prime number, and n^2 , a square number are consective such that the prime is smaller. Thus $p = n^2 - 1 = (n+1)(n-1)$, which is not prime when n > 2. Therefore the claim must be true.