1. [10pts] (a) Use the Euclidean algorithm to find \( \gcd(78, 208) \).
(b) Find the smallest prime divisor of 2717.

2. [10pts] Let \( n \in \mathbb{N} \). Prove that if \( \gcd(4, n) = 2 \), then \( n = 2k \) for some odd integer \( k \).