MAT 129
Lab #9
March 12, 2007

(1) Use smallest counter example to show that

$$\sum_{k=1}^{n}(2k-1) = n^2.$$

(2) Use the Well Ordering Principle to show for each integer $n \geq 2$ that n has at least one prime divisor.

(3) Let A and B be sets. Give a proof by contradiction that

$$(A - B) \cap (B - A) = \emptyset.$$