

# MAT 137 (Calculus II) Prof. Swift

## Second Worksheet on Sequences

1. Suppose that  $\lim_{n \rightarrow \infty} |a_n| = 0$ . Use the squeeze theorem (also called the sandwich theorem) to prove that  $\lim_{n \rightarrow \infty} a_n = 0$ .
2. Find a formula for  $f(n) = 1 \cdot 3 \cdot 5 \cdot \dots \cdot (2n - 3) \cdot (2n - 1) \cdot (2n + 1)$ , involving factorials.