

Challenge
MATH 4433 Introduction to Analysis

Name:

1. (Not so hard...) Find examples of infinite series $\sum_j a_j$ and $\sum_j b_j$ such that both series diverge, but the series $\sum_j \min\{a_j, b_j\}$ converges.

2. Find examples for the above condition, but requiring in addition that the sequences $\{a_j\}$ and $\{b_j\}$ are positive and monotone decreasing.