Abstract

This paper presents a curious and interesting analytic identity involving the simple self-counting sequence \( \{a_k\}_{k=1}^{\infty} = \{1, 2, 2, 3, 3, 3, 4, 4, 4, 4, \ldots\} \). The shape of this identity is similar to a Lambert series and gives therefore rise to a combinatorial interpretation, which we deduce in the second half of the paper.