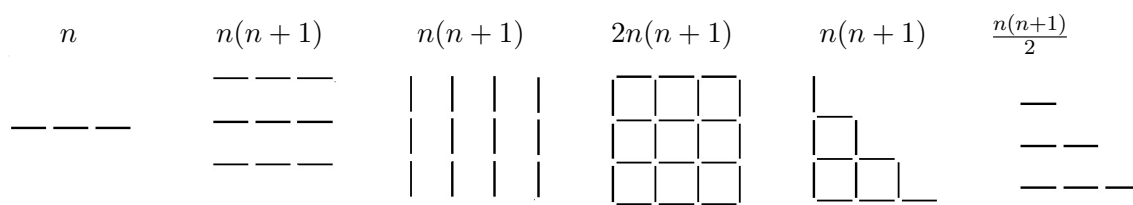


Proof Without Words: Sum of the First n Integers

Greg Orosi, American University of Sharjah

Abstract: Using a symmetry-based argument, we prove the well-known formula for the sum of the first n integers.

Keywords: proof, geometry, integers



$$S_n = \sum_{i=1}^n i = 1 + 2 + \dots + n = \frac{n(n+1)}{2}$$



Greg Orosi, gorosi@ucalgary.ca, is currently an Associate Professor in the Department of Mathematics and Statistics at the American University of Sharjah. His primary research areas include computational finance, empirical finance, and numerical methods applied to derivative pricing. However, in recent years, he also made some minor contributions to mathematics education by providing proofs of some well-known mathematical results.