PartialSum Tivenan.pdf

Stephen Tivenan

February 2019

1 Answer to Questions

The partial sum term that I created was $a_n = \prod_{x=0}^n e^{-x}$ converged to 0. The product series p_n converged to .66666 and the product series q_n converged to 0. They converged to these values because after calculating the sum over a large amount of numbers, around a thousand, the numbers stayed the same. Once the product remained the same, indicated that the value of the product of the following number barely made a difference.

$$\star p_n = \prod_{i=2}^n \frac{i^3 - 1}{i^3 + 1}$$

$$\star q_n = \prod_{i=1}^n \frac{e^{i/100}}{i^{10}}$$

Figure 1: The Infinite series