

Today in Math History...



-25 October 1713

Gottfried Leibniz, in a letter to Johann Bernoulli, observed that an alternating series whose terms monotonically decreased to zero in absolute value is convergent.

In mathematics, an alternating series is an infinite series of the form

$$\sum_{n=0}^{\infty} (-1)^n a_n,$$

with $a_n \geq 0$. A finite sum of this kind is an alternating sum. An alternating series converges if the terms a_n converge to 0 monotonically.