alternating series

Canonical name	AlternatingSeries
Date of creation	2013-03-22 12:27:05
Last modified on	2013-03-22 12:27:05
Owner	mathcam (2727)
Last modified by	mathcam (2727)
Numerical id	6
Author	mathcam (2727)
Entry type	Definition
Classification	msc 40-00
Synonym	alternating series test
Related topic	LeibnizsTheorem
Related topic	ProofOfLeibnizsTheorem
Related topic	AlternatingSeriesTest

An *alternating series* is a series of the form

$$\sum_{i=0}^{\infty}(-1)^i a_i$$

or

$$\sum_{i=0}^{\infty}(-1)^{i+1} a_i$$

where (a_n) is a non-negative sequence. Loosely, this is just a series where the "alternate" between positive and negative.

For convergence issues, see the following entry: `http://planetmath.org/AlternatingSeriesT` series test.