

ALTERNATING SERIES: Let $a_n > 0$ and

consider $\sum_1^{\infty} (-1)^{n-1} a_n$, called an "alternating series"

because its terms $(-1)^{n-1} a_n$ change sign. This allows for certain cancellative to take place.

ALTERNATING SERIES TEST: If $\{a_n\}_1^{\infty}$ is positive

and a_n decreases to zero as $n \rightarrow +\infty$, then

$$\sum_1^{\infty} (-1)^{n-1} a_n \text{ converges .}$$

If $\sum_1^{\infty} (-1)^{n-1} a_n$ converges, but $\sum_1^{\infty} a_n$ diverges, we say

that $\sum_1^{\infty} (-1)^{n-1} a_n$ converges conditionally.

