# Divergence Test

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#### Abstract

A series can be defined as its sequence of terms. Depending on what those sequence of terms approach, it can be determined whether or not a series converges. If the terms approach a number greater than zero, the sum adds numbers greater than zero infinitely, implying divergence.

### 1 Declarations

 $A_n$ ; the nth term of a sequence;

#### 2 Rule

if 
$$\lim_{n \to \infty} \neq 0$$
,  $\sum_{n=0}^{\infty} A_n$  diverges (1)

## 3 Pre-Derivation

Anything that the derivation relies on goes here

### 4 Derivation

Derivation goes here

### 5 Exempli Gratia

Examples of important instances