

# Convergence of infinite series

Given the infinite series

$$\sum_{n=1}^{\infty} a_n$$

evaluate

$$L := \lim_{n \rightarrow \infty} \left| \frac{a_{n+1}}{a_n} \right|$$

there are three possibilities

$$L < 1$$

convergent

$$L > 1$$

divergent

$$L = 1$$

no conclusion