

Summary of Convergence Tests

TEST	SERIES	Series CONVERGES if...	Series DIVERGES if ...	COMMENTS
n th term Test	$\sum_{n=1}^{\infty} a_n$			
Geometric Series Test	$\sum_{n=1}^{\infty} a_n r^{n-1}$			
p-Series Test	$\sum_{n=1}^{\infty} \frac{1}{n^p}$			
Integral Test	$\sum_{n=1}^{\infty} a_n$ $a_n = f(x)$			
Direct Comparison Test	$\sum_{n=1}^{\infty} a_n$			
Limit Comparison Test	$\sum_{n=1}^{\infty} a_n$			
Alternating Series Test	$\sum_{n=1}^{\infty} (-1)^{n+1} a_n$			
Ratio Test	$\sum_{n=1}^{\infty} a_n$			