

To help you remember all these tests, just think of Moses fleeing with the Israelites from Pharaoh:

PARTING C

P *p*-series: Is the series in the form $\frac{1}{n^p}$?

A Alternating series: Does the series alternate? If it does, are the terms getting smaller, and is the n th term 0?



R Ratio Test: Does the series contain things that grow very large as n increases (exponentials or factorials)?

T Telescoping series: Will all but a couple of the terms in the series cancel out?

I Integral Test: Can you easily integrate the expression that defines the series (are Dogs Cussing in Prison?)

N n th Term divergence Test: Is the n th term something other than zero?

G Geometric series: Is the series of the form $\sum_{n=0}^{\infty} ar^n$?

C Comparison Tests: Is the series *almost* another kind of series (e.g. *p*-series or geometric)? Which would be better to use: the Direct or Limit Comparison Test?