Calculus Section 9.6 Ratio Test  
**-Use the ratio test to determine convergence or divergence**

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The **ratio test** is a test that determines whether a function converges absolutely.  
**Ratio Test**  
Let ∑an be a series with nonzero terms.

1) ∑an converges absolutely if

2) ∑an diverges if

3) The Ratio Test is inconclusive if  
  
The Ratio Test is particularly useful for series that converge rapidly (i.e. factorials or exponentials).  
 **Example) Determine Convergence or Divergence**

1) 2)

3) 4)