Determining Types of Convergence Tests:

1) Always **Start with n^{th} term test** unless the series is instantly recognizable (geometric series or p-series)

2) Does it look like a Geometric Series? $\sum_{n=0}^{\infty}\left(\frac{2}{7}\right)^n$

3) Does it look like a P-Series Test? $\sum_{n=1}^{\infty}\frac{4}{n^3}$

4) Does it look like Integral Test?
(does it look like a u-substitution problem?) $\sum_{n=2}^{\infty}\frac{1}{n(\ln n)^4}$

5)Does it look a good fit for Limit Comparison Test? $\sum_{n=1}^{\infty}\frac{5n^2-6n+3}{n^3-7n+8}$

6) Does it look like an Alternating Series? $\sum_{n=1}^{\infty}\frac{(-1)^n}{\ln n}$

7) Does it look like a good fit for Ratio Test? $\sum_{n=1}^{\infty}\frac{n!}{10^n}$ or $\sum_{n=1}^{\infty}\frac{3^{n-1}}{n2^n}$

(factorials and/or exponentials involved)

8) Does it look like a Root Test problem?
(entire expression is raised to the n^{th} power) $\sum_{n=1}^{\infty}\left(\frac{n+1}{2n+1}\right)^n$

9) Direct Comparison can be an option when LCT doesn't quite seem to be a good fit $\sum_{n=1}^{\infty}\frac{1}{n+n\cos^2(n)}$