

§ 10

Corollary 1 If $\sum_{i=1}^{\infty} a_i$ conv

then $\lim_{n \rightarrow \infty} a_n = 0$

Pf: $\lim_{n \rightarrow \infty} a_n = \lim_{n \rightarrow \infty} (s_n - s_{n-1})$
 $= 0$ if $\{s_n\}$ is Cauchy

Corollary 2 If $\limsup_{n \rightarrow \infty} |a_n|$

> 0 then $\sum_{i=1}^{\infty} a_i$ diverges