

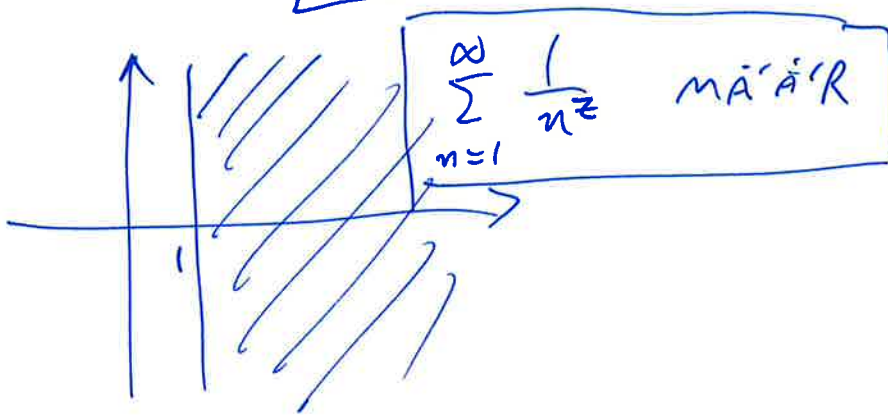
$$\sum_{n=1}^{\infty} \frac{1}{n^x} < \infty \quad \Leftrightarrow \quad x > 1$$

$$\sum_{n=1}^{\infty} \frac{1}{n} = \infty, \quad \sum_{n=1}^{\infty} \frac{1}{n^2} = \frac{\pi^2}{6}$$

$$\sum_{n=1}^{\infty} \frac{1}{n^z} \quad \text{SUPPENNEN} \quad \Leftrightarrow \quad z = x + iy$$

TOTEUTUA  $x > 1$

$$= \frac{1}{n^z} = n^{-z} = e^{\log n \cdot (-z)} = e^{-z \log n}$$



ANALYTTINEN JATKO

VS. NOLLAJATKO

$\gamma = 2$  VÄLI  
[0, 2)

$\phi_{\gamma} \leq 2$

PALJAN PITÄVÄS  
 $2^{-\gamma} = 2^{-2} = \frac{1}{4}$

