

$$1) \quad \varphi_n : \mathbb{N} \longrightarrow \mathbb{R} \quad \varphi_n(m) = \frac{m}{m+n}$$

$$\lim_{n \rightarrow \infty} \varphi_n(m) = 0$$

$$\lim_{n \rightarrow \infty} \left( \lim_{m \rightarrow \infty} \varphi_n(m) \right) = 0 ;$$

$$\lim_{n \rightarrow \infty} \left( \lim_{m \rightarrow \infty} \varphi_n(m) \right) = \lim_{n \rightarrow \infty} 1 = 1 ,$$