Polomēr Konvergence

(1) $\sum_{n=1}^{\infty} \frac{x^n}{n^2}$

(2) $\sum_{n=1}^{\infty} \frac{(n!)^2}{(2n)!} x^n$

(3) $\sum_{n=1}^{\infty} \left(1+\frac{1}{n}\right)^{n^2} x^n$

(4) $\sum_{n=0}^{\infty} \frac{\alpha(\alpha-1)\cdots(\alpha-n+1)}{n!} x^n$

(5) $\sum_{n=0}^{\infty} \frac{2^n}{n^2} x^n$

(6) $\sum_{n=0}^{\infty} \frac{n}{x^n}$

(7) $\sum_{n=0}^{\infty} \frac{1}{2n+1} \left(\frac{1-x}{1+x}\right)^n$

(8) $\sum_{n=0}^{\infty} n e^{-nx}$

(9) $\sum_{n=0}^{\infty} \left(1+\frac{1}{n+1}\right)^{-n^2} e^{-nx}$