Analisi Matematica 1 Esercitazione 14-01

January 12, 2021

Studiare la convergenza delle seguenti serie:

1.
$$\sum_{n=3}^{\infty} \frac{\log n}{n} \tag{1}$$

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

3.
$$\sum_{n=1}^{\infty} \frac{3n^2+1}{n^4+n+1} \tag{3}$$

4.
$$\sum_{n=1}^{\infty} \frac{1}{e^n+n^3} \tag{4}$$

5.
$$\sum_{n=1}^{\infty} \frac{3^n+\log n!}{n^5+2^{\frac{2n^2}{n+1}}} \tag{5}$$

6.
$$\sum_{n=1}^{\infty} \frac{(n^2+1)^n}{2n!} \tag{6}$$

7.
$$\sum_{n=1}^{\infty} \frac{2^n+3^n}{5^n} \tag{7}$$

8.
$$\sum_{n=1}^{\infty} \frac{n}{n+1!} \tag{8}$$

9.
$$\sum_{n=1}^{\infty} \left(\sqrt[n]{n}-1 \right)^n \tag{9}$$

10.

$$\sum_{n=1}^{\infty} \frac{(n+1)(2+\sin n)}{\sqrt[3]{n^5}} \tag{10}$$

11.

$$\sum_{n=1}^{\infty} \frac{2^n \left(n^2+\sin(e^n)\right)}{3^n} \tag{11}$$