

Esercizi su limiti di successioni - 2

Calcolare i seguenti limiti di successioni.

$$1. \lim_{n \rightarrow +\infty} \frac{n^2 - \log_2(n) + 3^{-n}}{2^n + 5}$$

$$2. \lim_{n \rightarrow +\infty} \frac{(2^n + 2^{-n})^2 - 3^n}{5^{n/2}}$$

$$3. \lim_{n \rightarrow +\infty} \frac{\log_5(n+1)}{n}$$

$$4. \lim_{n \rightarrow +\infty} \frac{n}{\log_4 n}$$

$$5. \lim_{n \rightarrow +\infty} \frac{\sqrt[3]{\log_2 n}}{n}$$

$$6. \lim_{n \rightarrow +\infty} \frac{2^{2n-5}}{n^2 - 3^{n+1}}$$

$$7. \lim_{n \rightarrow +\infty} \frac{n - \sqrt{1 + n^3}}{n \log_2 n}$$

$$8. \lim_{n \rightarrow +\infty} \frac{n - \sqrt{1 + n^3}}{n \log_{1/3} n}$$

$$9. \lim_{n \rightarrow +\infty} \frac{\sqrt{2^n - 1} - \log_2(n^5)}{n}$$

$$10. \lim_{n \rightarrow +\infty} \frac{\log_3(n^{2n})}{\sqrt{n^2 + n} - n}$$

$$11. \lim_{n \rightarrow +\infty} \frac{3^{n-\sqrt{n}}}{2^{n+1}}$$

$$12. \lim_{n \rightarrow +\infty} \frac{\sqrt{4^n + n^4} - 2^n}{3^{n/2}}$$

$$13. \lim_{n \rightarrow +\infty} \frac{2^n}{3^{\sqrt{n}}}$$

$$14. \lim_{n \rightarrow +\infty} \frac{n \log_3(\sqrt{n} + 1)}{\sqrt{n^2 - 2n}}$$