

ESERCIZI SULLE SUCCESSIONI NUMERICHE

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

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

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

$$4. \lim_{n \rightarrow \infty} \frac{(-1)^{2n} n^2+3}{1+2n+5n^2}$$

$$5. \lim_{n \rightarrow \infty} \left(1 + \frac{(-1)^n}{n+1} \right)^{n+1}$$

$$6. \lim_{n \rightarrow \infty} \sqrt{\frac{n^2+1}{e^2 n^2+2}}$$

$$7. \lim_{x \rightarrow \infty} \frac{\text{sen}(n^4)}{1+n}$$

$$8. \lim_{n \rightarrow \infty} \frac{2 \ln^{10} n + n^{-2} + 2^{\frac{1}{n}}}{e^{-3n} + n^2 \ln n}$$

$$9. \lim_{x \rightarrow \infty} \frac{2n \ln n}{(1-3n)(2-n)}$$

$$10. \lim_{n \rightarrow \infty} (-1)^n \frac{2n}{n^2 + 1}$$

$$11. \lim_{n \rightarrow \infty} \frac{2(n+2)!}{n^2 n!}$$

$$12. \lim_{n \rightarrow \infty} \frac{(n+2)! + 4^n}{n^2 n!}$$

$$13. \lim_{n \rightarrow \infty} \left(\frac{n}{n-1} \right)^{n/n+1}$$

$$14. \lim_{n \rightarrow \infty} \left(\frac{n^2 + n}{n^2 - n + 2} \right)^n$$