

Calcolare il valore dei seguenti limiti:

$$1. \lim_{x \rightarrow 2} (x^3 - 2x + 1)$$

$$2. \lim_{x \rightarrow 4} (2x + \sqrt{x} - 5)$$

$$3. \lim_{x \rightarrow \frac{\pi}{3}} \frac{\sqrt{3} \cdot \operatorname{sen} x - 2 \cos x}{x}$$

$$4. \lim_{x \rightarrow 0^+} \log \operatorname{sen} x$$

$$5. \lim_{x \rightarrow -\infty} \operatorname{arcsen} \frac{1}{2 + e^x}$$

$$6. \lim_{x \rightarrow \infty} \frac{x^2 - 6x + 5}{x^3 - 4x^2 - x - 20}$$

$$7. \lim_{x \rightarrow \infty} \frac{x^3 - 4x^2 - x - 20}{x^2 - 6x + 5}$$

$$8. \lim_{x \rightarrow 5} \frac{x^3 - 4x^2 - x - 20}{x^2 - 6x + 5}$$

$$9. \lim_{x \rightarrow \infty} \frac{7x^2 - 3x + 1}{2x^2 + 2x + 2}$$

$$10. \lim_{x \rightarrow \infty} \sqrt[3]{\frac{x^2 + 3x - 16x^3}{2x^3 + 2x + 3}}$$

$$11. \lim_{x \rightarrow \infty} \frac{5\sqrt[3]{x^2} - 5}{2x + 7}$$

$$12. \lim_{x \rightarrow 2} \lim_{x \rightarrow 2} \frac{1 - \sqrt{3 - x}}{2 - x}$$

$$13. \lim_{x \rightarrow 0} \frac{\operatorname{sen} 3x}{\operatorname{sen} 6x}$$

$$14. \lim_{x \rightarrow 0} \frac{\cos x \cdot (1 - \cos x)}{\operatorname{sen}^2 x}$$

$$15. \lim_{x \rightarrow 0} \left(1 + \frac{x}{2}\right)^{\frac{1}{x}}$$

$$16. \lim_{x \rightarrow \infty} \left(\frac{x}{1+x}\right)^x$$

$$17. \lim_{x \rightarrow 0} \frac{2^x - 1}{4x}$$

$$18. \lim_{x \rightarrow 0} \frac{\ln(1+3x)}{x}$$

$$19. \lim_{x \rightarrow e} \frac{\ln x - 1}{x - e}$$

$$\lim_{x \rightarrow 2} \frac{x^2 + 2}{x^2 - 3}$$

$$\lim_{x \rightarrow +\infty} \frac{e^{-x}}{\log x}$$

$$\lim_{x \rightarrow 0^+} \frac{\log x}{1 + e^x}$$

$$\lim_{x \rightarrow +\infty} x \cdot \log x$$

$$\lim_{x \rightarrow 0^+} \operatorname{sen} \frac{1}{\ln x}$$

$$\lim_{x \rightarrow 0^+} (\ln x - \operatorname{cotg} x)$$

$$\lim_{x \rightarrow 0^+} \left(\frac{1}{x} - \ln x\right)$$

$$\lim_{x \rightarrow \infty} \frac{x^2 + x - 6}{x^3 - 4x^2 + x + 6}$$

$$\lim_{x \rightarrow \infty} \frac{3x^2 - 2x + 1}{4x^3 + 2x + 2}$$

$$\lim_{x \rightarrow \infty} \sqrt[3]{\frac{x^2 + 3x - 2x^3}{16x^3 + 2x + 3}}$$

$$\lim_{x \rightarrow \infty} \frac{5\sqrt[3]{x^2} - 5}{2x^3 + 7}$$

$$\lim_{x \rightarrow 3} \frac{3 - x}{1 - \sqrt{4 - x}}$$

$$\lim_{x \rightarrow 0} \frac{\operatorname{sen} 6x}{\operatorname{sen} 2x}$$

$$\lim_{x \rightarrow 0} \frac{\operatorname{sen}^2 x}{\cos x \cdot (1 - \cos x)}$$

$$\lim_{x \rightarrow 0} (1 + 5x)^{\frac{2}{x}}$$

$$\lim_{x \rightarrow 0} (1 + 5 \operatorname{tg}^2 x)^{\operatorname{cotg}^2 x}$$

$$\lim_{x \rightarrow 0} \frac{e^{3x} - 1}{5x}$$

$$\lim_{x \rightarrow 0} \frac{\ln(1+x)}{5x}$$

$$\lim_{x \rightarrow 2} \frac{\sqrt{x+7}}{3x}$$

$$\lim_{x \rightarrow 0} \frac{2 \cos x}{\operatorname{sen} x}$$

$$\lim_{x \rightarrow \frac{1}{2}} (\operatorname{arcsen} x + 2x)$$

$$\lim_{x \rightarrow -\infty} \operatorname{arctg}(1 + e^x)$$

$$\lim_{x \rightarrow 0} \frac{x}{\operatorname{cotg} x}$$

$$\lim_{x \rightarrow -\infty} \frac{\ln(1-x)}{2^x}$$

$$\lim_{x \rightarrow 3} \frac{x^2 - 2x - 3}{x^2 - 6x + 9}$$

$$\lim_{x \rightarrow -2} \frac{x^3 + 5x^2 + 8x + 4}{x^2 - x - 6}$$

$$\lim_{x \rightarrow \infty} \frac{5x^4 - 3x + 1}{4x^2 + 2x + 2}$$

$$\lim_{x \rightarrow \infty} \frac{5x^2 - 3x + 1}{\sqrt{x^4} + 7}$$

$$\lim_{x \rightarrow +\infty} \frac{\sqrt[3]{x} + \sqrt{x}}{\sqrt{x} + 7}$$

$$\lim_{x \rightarrow +\infty} \frac{-5}{\sqrt{x+1} - \sqrt{x}}$$

$$\lim_{x \rightarrow 0} \frac{\operatorname{sen} x + 5x}{x}$$

$$\lim_{x \rightarrow 0} \frac{1 - \cos x}{x^2}$$

$$\lim_{x \rightarrow 0} (1 - 4x)^{\frac{3}{x}}$$

$$\lim_{x \rightarrow 0} \frac{4^x - 1}{2x}$$

$$\lim_{x \rightarrow 1} \frac{5^x - 5}{x - 1}$$

$$\lim_{x \rightarrow 0} \frac{\ln(1+3x)}{5x}$$