

Determinare il valore dei seguenti limiti.

1. $\lim_{x \rightarrow +\infty} \left(\frac{3x^2 + 4x^5 - 6x}{5x^3 - 7} + \log(x^3 + 1) \right)$
2. $\lim_{x \rightarrow +\infty} \left(\frac{5x^3 - 5x^2 + 4x}{8x^5 - 4x^3 + 2} + \log(3x^5 + 4x^3) + e^{7x+1} \right)$
3. $\lim_{x \rightarrow +\infty} ((5x^4 + 3x^2 + 7x) \log(x^5 + 1))$
4. $\lim_{x \rightarrow +\infty} \left(\frac{\log(5x^2 + 1)}{x^7 + 5x - 3} \right)$
5. $\lim_{x \rightarrow +\infty} \left(\frac{\log(3x^2 + 3)}{3x^2 + 3} + e^{4x^3 - 5x + 1} \right)$
6. $\lim_{x \rightarrow 0^+} ((5x^3 + 4x^4 + 2x) \log(x^3 + 2x^2))$
7. $\lim_{x \rightarrow 0^+} \left(\frac{3x^2 + 5x + 2}{x^2 + 4x} - \log(x^2 + 1) \right)$
8. $\lim_{x \rightarrow -4^+} \frac{3x^2 + 5x + 2}{x^2 + 4x}$
9. $\lim_{x \rightarrow -4^-} \frac{3x^2 + 5x + 2}{x^2 + 4x}$
10. $\lim_{x \rightarrow 0^+} \left(\frac{5x^2 + 4x + 2}{x^2 + 2x} - \log(x) \right)$
11. $\lim_{x \rightarrow 0^+} \frac{5x^2 + 4x + 2}{x^2 + 2x}$
12. $\lim_{x \rightarrow 0^-} \frac{5x^2 + 4x + 2}{x^2 + 2x}$
13. $\lim_{x \rightarrow -2^+} \frac{5x^2 + 4x + 2}{x^2 + 2x}$
14. $\lim_{x \rightarrow -2^-} \frac{5x^2 + 4x + 2}{x^2 + 2x}$

15. $\lim_{x \rightarrow +\infty} \frac{2}{e^{x+1}}$
16. $\lim_{x \rightarrow 0} \left(\frac{\log(x+1)}{x} + \frac{e^x - 1}{x} \right)$
17. $\lim_{x \rightarrow +\infty} \frac{3x^5 + 4x^8}{e^{3x+1}}$
18. $\lim_{x \rightarrow +\infty} \left(\frac{6x^2 - 6x + 1}{6x^2 - 6x} + \log(x^3 + 2x) \right)$
19. $\lim_{x \rightarrow +\infty} \left(\frac{x^2 - 4x + 3}{x^7} + \log(x^9 + 1) \right)$
20. $\lim_{x \rightarrow +\infty} \left(\frac{8x - 4}{x^3 - 5x^2} + e^{x^3+1} \right)$
21. $\lim_{x \rightarrow 0} \left(\frac{\log(x+1)}{x} \right)^2$
22. $\lim_{x \rightarrow 0^+} \left(\frac{e^x - 1}{x} + \log(x^5 + 3x) \right)$
23. $\lim_{x \rightarrow 0} \left(\frac{e^x - 1}{x} \right)^5$
24. $\lim_{x \rightarrow 0} \left(\frac{e^x - 1}{x} + \frac{\log(x+1)}{x} \right)$
25. $\lim_{x \rightarrow 0} \left(\frac{\log(4x^5 + 1)}{4x^5} + \frac{e^{3x} - 1}{3x} + \log(5x^2 + 4) \right)$
26. $\lim_{x \rightarrow +\infty} \left(\frac{\log(x^3 + 4x)}{3x^2 + 4} + \frac{3x^5 + 7x}{5x^3 + 2} + e^{5x^3 - 2x^2 + 1} \right)$
27. $\lim_{x \rightarrow +\infty} \left(\frac{\log(x^2 + 4)}{3x + 1} + 2xe^{5x-1} + \sqrt{x^4 + 5x^2 + 1} \right)$
28. $\lim_{x \rightarrow +\infty} \left(\frac{\log(7x + 3)}{5x^3 + 4x^2 - 7} + (3x^2 - 5x)e^{4x-1} \right)$

29. $\lim_{x \rightarrow 0} \left(\frac{\log^3(4x + 1)}{64x^3} + 16x^2 e^{5x+1} \right)$
30. $\lim_{x \rightarrow -\infty} \left(e^{3x^2+5x^3} + \sqrt{x^4 + 6x + 1} \right)$
31. $\lim_{x \rightarrow -1} \left(\frac{\log(x + 2)}{x + 1} + e^{3x+3} \right)$
32. $\lim_{x \rightarrow 2^+} \left(\frac{\log(x - 2)}{3x + 5} \right)$
33. $\lim_{x \rightarrow 3} \left(\frac{\log(x - 2)}{x - 3} + \frac{e^{3(x-3)^2} - 1}{3(x - 3)^2} \right)$
34. $\lim_{x \rightarrow 4^+} \left(\frac{\log(5x - 19)}{5x - 20} + \frac{e^{x^2-8x+16} - 1}{(x - 4)^2} + \sqrt{x^2 - 16} \right)$