RELACIÓN 2: CÁLCULO DIFERENCIAL MÁS LIMÍTES!!!!

1. $\lim_{n\to\infty} \sqrt[2n]{\left(\frac{n^2+n}{n^2+3}\right)^{4n^2}}$

2. $\lim_{n\to\infty} \frac{\frac{n}{n-1}\cdot\frac{n-1}{n+1}}{1+\frac{2n-3}{n^2+2}}$

3. $\lim_{n\to\infty} \sqrt[5]{\frac{27n^3+5n^2}{\frac{n^3}{9}+8}}$

4. $\lim_{n\to\infty} \frac{2+4+6+.....+2n}{n^3-1}$

5. $\lim_{n\leftarrow\infty} \frac{1+2+3+....+n}{n^2}$

6. $\lim_{n\to\infty}\left(4+\frac{3}{n}\right)^2$

7. $\lim_{n\to\infty}\left(8-\frac{3}{2^n}\right)^{1/3}$

8. $\lim_{n\to\infty}\left(\frac{n^4-3n^2+1}{4n^3+n-3}-\frac{n^2-1}{3n^4-2n}\right)$

9. $\lim_{n\to\infty}\left(\frac{2n+5}{n+4}\right)^{-n/2}$

10. $\lim_{n\to\infty} \sqrt[2n]{\frac{1+n}{3+n}}$

11. $\lim_{n\to\infty}\left(\frac{3-2n}{5-3n}\right)^{\frac{n}{n+1}}$

12. $\lim_{n\to\infty} 4^{\frac{3n-1}{6n+2}}$

13. $\lim_{n\to\infty}\left(\frac{3n-1}{5n+2}\right)^{-n-3}$

14. $\lim_{n\to\infty} \frac{1-\frac{n}{n+1}}{3-\frac{3n}{n+1}}$

15. $\lim_{n\to\infty}\left(\frac{n^4-n}{2n-1}-\frac{n^2}{n+1}\right)$

16. $\lim_{n\to\infty}\left(n-\sqrt{n^2-n+3}\right)$

17. $\lim_{n\to\infty}\left(\sqrt{n^2+5n}-2n\right)$

18. $\lim_{n\to\infty}\left(\sqrt{n}-\sqrt{2n+1}\right)$

19. $\lim_{n\to\infty}\left(\sqrt{n^3}-\sqrt{n^2+n}\right)$

20. $\lim_{x\to-1}\left(\frac{x^2-3x}{x-3}\right)^2 =$

21. $\lim_{x\to3}\left(\frac{x^2-3x}{x-3}\right) =$

22. $\lim_{x\to0}\left(\frac{x^2-3x+5}{2x^2+x}\right) =$

23. $\lim_{x\to2}\left(\frac{x^2-4}{(x-2).(x^2+4)}\right) =$

24. $\lim_{x\to5}\left(\frac{2x-10}{\sqrt{x+4}-3}\right) =$

25. $\lim_{x\to3}\left(\frac{\sqrt{x+1}-2}{\sqrt{2x+10}-\sqrt{5x+1}}\right) =$

26. $\lim_{x\to0}\left(\frac{\sqrt{x+4}-2}{x}\right) =$

27. $\lim_{x\to1}\left(\frac{3x+4}{2x+5}\right)^{\frac{3}{x-1}} =$

28. $\lim_{x\to3}\left(\frac{3x^2-1}{-x+3}\right)^{\frac{3x+2}{x^2-1}} =$

29. $\lim_{x\to\infty}\left(\frac{x^3-3x+9}{4x^3-6x}\right) =$

30. $\lim_{x\to\infty} \sqrt{\frac{3x^2}{5x^2-4x+1}} =$

31. $\lim_{x\to3} \frac{x^3-2x+1}{5x}\bullet\frac{x^2+1}{4x^4-3} =$

32. $\lim_{x\to\infty}\left(\sqrt{x^2+5x-3}-x\right) =$

33. $\lim_{x\to\infty}\left(\frac{4-3x}{5-3x}\right)^{x-3} =$

34. $\lim_{x\to\infty}\left(\frac{2x^2-6x}{2x^2-x-5}\right)^{\frac{x^2}{2}} =$

35. $\lim_{x\to\infty}\left[\frac{2}{x+1}\sqrt{x^2+1}\right] =$

36. $\lim_{x\to\infty} \sqrt{9x^2+2x-3}-3x =$

37. $\lim_{x\to-\infty}\left(\frac{x^3-3x+9}{4x^2-6x}\right) =$

38. $\lim_{x\to-\infty}\left(\frac{-2}{1-x^3}\right) =$

39. $\lim_{x\to2}(x-1)^{\frac{1}{x-2}} =$

40. $\lim_{x\to1} x^{\frac{2}{1-x}} =$