



LISTA DE PROBLEMAS SOBRE LÍMITES

1. $\lim_{x \rightarrow -1} (x^4 - 2x^3 + 10)$

2. $\lim_{x \rightarrow 3} \frac{2x^2 - 3x + 4}{x^2 - 9}$

3. $\lim_{x \rightarrow 9} \frac{x - 9}{3 - \sqrt{x}}$

4. $\lim_{x \rightarrow \infty} \frac{5x^3 - x^2 + 10}{2x^4 + x + 3}$

5. $\lim_{x \rightarrow 0} \frac{x + 5}{x^2}$

6. $\lim_{x \rightarrow 2} \frac{x - 2}{2 - \sqrt{4x - x^2}}$

7. $\lim_{x \rightarrow 1} \frac{x^2 - 6x + 5}{x^2 + 4x - 5}$

8. $\lim_{x \rightarrow 2} \frac{3x - 6}{2x^2 + 3x - 14}$

9. $\lim_{x \rightarrow 0} \sqrt[3]{5x^2 - 10x + 27}$

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

11. $\lim_{x \rightarrow -4} \frac{2x + 1}{3x + 12}$

12. $\lim_{x \rightarrow 5} \sqrt{x^2 + 11}$

12. $\lim_{x \rightarrow 0} \frac{x^4 + 2x^2 - x}{2x}$

13. $\lim_{x \rightarrow -1} \frac{x^3 + 1}{x^2 + 1}$

14. $\lim_{x \rightarrow 6} \sqrt{x + 3}$

15. $\lim_{x \rightarrow \infty} \frac{\sqrt{x^3} + 3x + 1}{2x^3 + 5x - 9}$

16. $\lim_{x \rightarrow -2} \frac{x^2 + x - 2}{x^2 - x - 6}$

17. $\lim_{x \rightarrow 4} \frac{2x^2 - 7x - 4}{x^2 - 2x - 8}$

18. $\lim_{x \rightarrow 0} \frac{x}{\sqrt[3]{x}}$

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

20. $\lim_{x \rightarrow 2} \frac{\frac{1}{x} - \frac{1}{2}}{x - 2}$

21. $\lim_{x \rightarrow 3} \frac{\sqrt{4x^2 + 13} - 7}{6 - 2x}$

22. $\lim_{x \rightarrow 1} \frac{x^3 - 1}{x^2 + 1}$

23. $\lim_{x \rightarrow -1} \frac{3x}{(2x^2 - 5)^2}$

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

25. $\lim_{x \rightarrow 1} \frac{x^{11} + 8x^5 - 7x^2 - 2}{x + 1}$

26. $\lim_{x \rightarrow 0} \frac{(2 - x)^3 - 8}{x}$

27. $\lim_{x \rightarrow 9} \frac{8\sqrt{x}}{1 + \sqrt{x}}$

28. $\lim_{x \rightarrow 0} \frac{x^4 - x^3 + 2x}{x^2 - 7x}$

29. $\lim_{x \rightarrow 9} \frac{3 - \sqrt{x}}{x^2 - 81}$

30. $\lim_{x \rightarrow \infty} \frac{3x^2 + 2x - 1}{2x^2 + 4x - 9}$

31. $\lim_{x \rightarrow 5} \frac{3x^2 - 13x - 10}{2x^2 - 7x - 15}$

32. $\lim_{x \rightarrow 0} \frac{\sqrt{x^2 + x + 1} + \sqrt{x^2 + x}}{\sqrt{x^2 + x + 1} + x}$

33. $\lim_{x \rightarrow 1} (4x^2 - 2x + 3)$

$$34. \lim_{x \rightarrow 3} \left(\frac{5 - \frac{15}{x}}{x - 3} \right)$$

$$35. \lim_{x \rightarrow \infty} \frac{\sqrt{4x^2 + 4x + 5}}{8x}$$

$$36. \lim_{x \rightarrow 3} \frac{3x^2 - 2x - 21}{(x - 3)^2}$$

$$37. \lim_{x \rightarrow -5} \frac{x^2 + 6x + 5}{x^2 + 4x - 5}$$

$$38. \lim_{x \rightarrow 2} \frac{6x^2 + x - 2}{2x^2 + 3x - 2}$$

$$39. \lim_{x \rightarrow 0} \frac{\sqrt{3 + x^2}}{x}$$

$$40. \lim_{x \rightarrow 2} \frac{x^2 - \sqrt{8x}}{\sqrt{2x} - 2}$$

$$41. \lim_{x \rightarrow 1} \frac{1 - \sqrt{2x - 1}}{\sqrt{x} - 1}$$

$$42. \lim_{x \rightarrow -2} \frac{x^2 - 4}{4x^2 + 5x - 6}$$

$$43. \lim_{x \rightarrow \infty} \frac{5x + 2}{\sqrt{4x^2 - 1}}$$

$$44. \lim_{x \rightarrow -3} \frac{x^2 - 5x - 24}{x + 3}$$

$$45. \lim_{x \rightarrow 0} \frac{x^3 - 2x}{3x^2 - 4x}$$

$$46. \lim_{x \rightarrow 4} \frac{2x}{(x - 2)^2}$$

$$47. \lim_{x \rightarrow 2} \frac{x^2 - 5x + 6}{x^2 - x + 8}$$

$$48. \lim_{x \rightarrow 1} \frac{x^2 - 4}{3x^3 + 6}$$

$$49. \lim_{x \rightarrow 0} \frac{\sqrt{8 + x} - \sqrt{8}}{x}$$

$$50. \lim_{x \rightarrow -2} \frac{x^3 + 2x^2 + x + 2}{x + 2}$$

$$51. \lim_{x \rightarrow 4} \frac{x^2 - x - 12}{x^2 - 3x - 4}$$

$$52. \lim_{x \rightarrow \sqrt{3}} \frac{x - \sqrt{3}}{x^2 - 3}$$

$$53. \lim_{x \rightarrow \infty} \frac{8x^3 - 2x + 2}{4x^3 + 3x^2 + x}$$

$$54. \lim_{x \rightarrow 1} \frac{x^3 - 3x^2 + 5x - 3}{x - 1}$$

$$55. \lim_{x \rightarrow 5} \frac{x^2 - 6x + 5}{x^2 - 10x + 25}$$

$$56. \lim_{x \rightarrow 0} \frac{x}{\frac{1}{6} - \frac{1}{x + 6}}$$

$$57. \lim_{x \rightarrow -3} \frac{x^2 + x - 6}{x^2 + 4x + 3}$$

$$58. \lim_{x \rightarrow 7} \frac{2 - \sqrt{x - 3}}{x^2 - 9}$$

$$59. \lim_{x \rightarrow 1} \frac{x^2 - x}{2x^2 + 5x - 7}$$

$$60. \lim_{x \rightarrow \infty} \frac{4x^2 - 3}{5x - 2x^2}$$

$$61. \lim_{x \rightarrow 1} \frac{x^2 - 2x + 1}{(x - 1)^2}$$

$$62. \lim_{x \rightarrow 0} \frac{5 - \sqrt{25 - x^2}}{x}$$

$$63. \lim_{x \rightarrow 3} \frac{x\sqrt{x} - 3\sqrt{3}}{\sqrt{x} - \sqrt{3}}$$

$$64. \lim_{x \rightarrow \infty} \frac{\sqrt{x} + 7x}{3x + 1}$$

$$65. \lim_{x \rightarrow 9} \frac{\frac{1}{\sqrt{x}} - \frac{1}{3}}{x - 9}$$

$$66. \lim_{x \rightarrow -1} \frac{2x^2 + 6x + 4}{x^2 - x - 2}$$

$$67. \lim_{x \rightarrow 2} \frac{x^2 + 4x - 12}{x^2 - 2x}$$

$$68. \lim_{x \rightarrow 10} \frac{\sqrt{x - 5} - \sqrt{5}}{x - 10}$$

$$69. \lim_{x \rightarrow 1} \frac{\sqrt{x + 3} - \sqrt{3x + 1}}{\sqrt{x} - 1}$$

$$70. \lim_{x \rightarrow 0} \frac{x}{x^3 - 5x^2 + 4x}$$

$$71. \lim_{x \rightarrow \sqrt{9}} \frac{x - \sqrt{9}}{9 - x^2}$$

$$72. \lim_{x \rightarrow -2} \frac{\frac{1}{x + 1} + 1}{x + 2}$$

$$73. \lim_{x \rightarrow 0} \frac{\sqrt{x + 2} - \sqrt{2}}{x}$$

$$74. \lim_{x \rightarrow 2} \frac{x^3 - 8}{x^2 - 4}$$

$$75. \lim_{x \rightarrow 0} \frac{4 - (2 + x)^2}{x}$$