

## EJERCICIOS DE INTEGRALES INDEFINIDAS

1. $\int \frac{x^4 + 5\sqrt[3]{x} - 3x\sqrt{x} - 2}{4x} dx$	2. $\int \frac{3x^2 + 5}{2x^2 + 4} dx$	3. $\int x \operatorname{Arctg}(x+1) dx$
4. $\int (x^e + e^x) dx$	5. $\int \frac{dx}{(\operatorname{Arcsen} x)^5 \sqrt{1-x^2}}$	6. $\int x^2 e^{3x} dx$
7. $\int \frac{x^2 - 2x}{(x-1)^2} dx$	8. $\int \frac{x^5}{\sqrt{1+x^3}} dx$	9. $\int \ln\left(\frac{x+1}{x-1}\right)^x dx$
10. $\int \frac{(1+x)^3}{\sqrt{x}} dx$	11. $\int x^3 \sqrt{2x+1} dx$	12. $\int \frac{\ln x}{x^3} dx$
13. $\int \frac{2^x + 3^x + 4 \cdot 5^x}{6^{x-1}} dx$	14. $\int \frac{x}{\sqrt{1+x^2} + \sqrt{(1+x^2)^3}} dx$	15. $\int x \ln^2 x dx$
16. $\int \operatorname{tg}^2 x dx$	17. $\int \frac{1}{e^x + e^{-x}} dx$	18. $\int x \operatorname{sen}(2x+1) \cos(2x-1) dx$
19. $\int \cos^2\left(\frac{x}{2}\right) dx$	20. $\int \frac{\operatorname{sen} x + \cos x}{\sqrt{\operatorname{sen} x - \cos x}} dx$	21. $\int \frac{4x^3 + 2x - 1}{2x+1} dx$
22. $\int \left(1 - \operatorname{sen}\left(\frac{x}{2}\right)\right)^2 dx$	23. $\int \frac{1}{x\sqrt{x^2-1}} dx$	24. $\int e^x \cos(3x) dx$
25. $\int \frac{x^2 + 2}{x+1} dx$	26. $\int \left(1 - (2x+1)^2\right)^{-\frac{1}{2}} dx$	27. $\int \frac{-x^2 + x - 1}{3-x} dx$
28. $\int \frac{1 + \cos^2 x}{1 + \cos 2x} dx$	29. $\int \operatorname{sen} x e^{-\cos x} dx$	30. $\int \frac{1}{(x-2)^2 (x^2+2)} dx$
31. $\int \frac{\cos 2x}{\cos^2 x \cdot \operatorname{sen}^2 x} dx$	32. $\int (x^2 + x) e^{-2x+1} dx$	33. $\int \frac{x^2 + x + 1}{x^3 - x^2 - x + 1} dx$
34. $\int \frac{1 + 2x^2}{x^2 (1+x^2)} dx$	35. $\int x^2 \operatorname{Arctg} x dx$	36. $\int x 2^x dx$
37. $\int (x - x^{-3}) \sqrt{x} \sqrt{x} dx$	38. $\int \frac{\sqrt{x} + 1}{\sqrt[3]{x}} \ln x dx$	39. $\int (1 - x^2)^{-\frac{3}{2}} dx$
40. $\int \frac{\sqrt{1+x^2} + \sqrt{1-x^2}}{\sqrt{1-x^4}} dx$	41. $\int \frac{x \operatorname{Arcsen} x}{\sqrt{1-x^2}} dx$	42. $\int \frac{4}{x^2 - 2x + 2} dx$
43. $\int (\operatorname{Arcsen} x + \operatorname{Arc} \cos x) dx$	44. $\int \frac{1}{x^3 - 1} dx$	45. $\int \frac{8x+6}{4x^2+4x+5} dx$
46. $\int \operatorname{sen} 2x \cos x dx$	47. $\int \ln(1+x^2) dx$	48. $\int \frac{x^2 + 1}{(x-1)^3} dx$

49. $\int \operatorname{sen}3x \operatorname{sen}2x \, dx$	50. $\int \frac{x}{1+x^4} \, dx$	51. $\int \frac{2}{x^3+x^2+x+1} \, dx$
52. $\int \cos\left(2x + \frac{\pi}{4}\right) \cos\left(2x - \frac{\pi}{4}\right) dx$	53. $\int \frac{x^2}{\sqrt{1+x^3}} \, dx$	54. $\int \sqrt[3]{x} \ln x \, dx$
55. $\int (\operatorname{tg}x - \operatorname{ctg}x)^2 \, dx$	56. $\int \frac{2^x}{\sqrt{1-4^x}} \, dx$	57. $\int \operatorname{Arcsen}x \, dx$
58. $\int \frac{(2+x)^2}{x(4+x^2)} \, dx$	59. $\int \frac{1}{\sqrt{x} + \sqrt[3]{x}} \, dx$	60. $\int \frac{x^3}{x^2+4x-5} \, dx$
61. $\int \frac{1}{\operatorname{sen}^2 x \cos^2 x} \, dx$	62. $\int x \sqrt{1-x^2} \, dx$	63. $\int \ln x \, dx$
64. $\int \frac{1}{\sqrt{x+2} + \sqrt{x-2}} \, dx$	65. $\int \frac{x^3}{\sqrt{1-x^8}} \, dx$	66. $\int \frac{3x^2+1}{x^4-1} \, dx$
67. $\int x \sqrt{x-1} \, dx$	68. $\int \frac{\operatorname{sen}2x}{\sqrt{1+\cos 2x}} \, dx$	69. $\int x^3 (1-2x^2)^{25} \, dx$
70. $\int \frac{6}{x^3-2x^2-x+2} \, dx$	71. $\int \operatorname{sen}^3 x \cos^5 x \, dx$	72. $\int \frac{1}{\cos^3 x \operatorname{sen}x} \, dx$
73. $\int \operatorname{sen}^3 x \cos^{15} x \, dx$	74. $\int \operatorname{sen}^5 x \, dx$	75. $\int \frac{\operatorname{sen}^3 x}{\cos^2 x} \, dx$
76. $\int \cos^3 x \, dx$	77. $\int \operatorname{tg}^3 x \sec^3 x \, dx$	78. $\int \frac{\operatorname{sen}^3 x}{\sqrt[3]{\cos x}} \, dx$
79. $\int \frac{\cos x}{2\operatorname{sen}x \cos^2 x + \operatorname{sen}^3 x} \, dx$	80. $\int \frac{\operatorname{sen}x}{(2+\cos x)\operatorname{sen}^2 x} \, dx$	81. $\int \frac{1}{4-3\cos^2 x + 5\operatorname{sen}^2 x} \, dx$
82. $\int \frac{\operatorname{sen}x \cos x}{\cos^2 x - 2\operatorname{sen}^2 x} \, dx$	83. $\int \frac{1}{2+\sqrt{x+1}} \, dx$	84. $\int \frac{x+\sqrt{x}}{\sqrt{x} + \sqrt[4]{x}} \, dx$
85. $\int \frac{1}{1+\operatorname{sen}^2 x} \, dx$	86. $\int \frac{1+\sqrt{x+1}}{1+\sqrt[3]{x+1}} \, dx$	87. $\int \frac{1}{\sqrt{x}(1+\sqrt[4]{x})} \, dx$
88. $\int \frac{\cos x}{\operatorname{sen}x + \cos x} \, dx$	89. $\int \frac{1+x+\sqrt{x+1}}{(x+1)\sqrt[3]{x+1}} \, dx$	90. $\int \frac{e^{3x}}{e^{2x} - 3e^x + 2} \, dx$
91. $\int \frac{\sqrt{x}}{1+\sqrt[3]{x}} \, dx$	92. $\int \frac{1}{e^x + e^{-x} + 1} \, dx$	93. $\int \frac{1+\sqrt{e^x}}{(1-\sqrt[4]{e^x})^2} \, dx$
94. $\int \frac{1}{(1-e^x)^2} \, dx$	95. $\int x^5 \sqrt{1-x^2} \, dx$	96. $\int \frac{1}{x^4 \sqrt{x^2-1}} \, dx$
97. $\int \frac{\sqrt{9-x^2}}{x} \, dx$	98. $\int \frac{1}{x\sqrt{1-x^2}} \, dx$	<i>fin</i>