

INTEGRALES

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

$$55. \int \frac{dx}{x \ln x}$$

$$58. \int \frac{dx}{(\arccos x)^3 \sqrt{1-x^2}}$$

$$61. \int \sqrt{\cos x} \operatorname{sen} x \, dx$$

$$64. \int \frac{dx}{(x+1)^2 + 1}$$

$$67. \int \frac{x^2 \, dx}{2+x^6}$$

$$70. \int \frac{\cos^3 x}{\operatorname{sen}^3 x} \, dx$$

$$73. \int \frac{x \, dx}{\sqrt{1-x^4}}$$

$$75. \int \ln(\cos x) \operatorname{tg} x \, dx$$

$$76. \int \frac{\ln(\ln x)}{x \ln x} \, dx$$

$$79. \int \operatorname{sen} 2 \frac{x}{\sqrt{2-\cos 2x}} \, dx$$

$$56. \int \frac{\cos \sqrt{x}}{\sqrt{x}} \, dx$$

$$59. \int \frac{1 + \ln x}{5 + x \ln x} \, dx$$

$$62. \int e^{e^x} e^x \, dx$$

$$65. \int \frac{\operatorname{sen}^3 x}{\sqrt{\cos x}} \, dx$$

$$68. \int \frac{dx}{x \sqrt{1-\ln^2 x}} \, dx$$

$$71. \int x^3 e^{-x^4} \, dx$$

$$74. \int x \sqrt{1+x^2} \, dx$$

$$77. \int \frac{e^{2 \operatorname{tg} x}}{\cos^2 x} \, dx$$

$$80. \int \operatorname{sen}^3 x \cos^2 x \, dx$$

$$57. \int (e^x + e^{-x})^2 \, dx$$

$$60. \int \frac{\operatorname{tg}^2 x + \operatorname{tg} x}{\cos^2 x} \, dx$$

$$63. \int e^x \cos e^x \, dx$$

$$66. \int \operatorname{sen} \ln x \frac{dx}{x}$$

$$69. \int \frac{\sqrt{3+\sqrt{x}}}{\sqrt{x}} \, dx$$

$$72. \int \frac{e^x}{e^{2x} - 2e^x + 1} \, dx$$

$$78. \int \frac{\operatorname{sen} x}{\cos^2 x} \, dx$$

$$81. \int \frac{\cos x}{e^{\operatorname{sen} x}} \, dx$$

### INTEGRACIÓN POR PARTES

$$82. \int x \operatorname{sen} x \, dx$$

$$85. \int x^3 e^x \, dx$$

$$88. \int \operatorname{arcsen} x \, dx$$

$$91. \int x^2 \operatorname{sen} x \, dx$$

$$94. \int \sqrt{x} \ln x \, dx$$

$$97. \int \frac{x \, dx}{\sqrt{1+x}}$$

$$100. \int \frac{\ln x}{\sqrt{x}} \, dx$$

$$103. \int \ln x \, dx$$

$$106. \int x e^{-3x} \, dx$$

$$109. \int \frac{\ln x}{x^3} \, dx$$

$$112. \int x (\ln x)^2 \, dx$$

$$115. \int \frac{x \, dx}{\sqrt{1-x}}$$

$$83. \int x \cos 3x \, dx$$

$$86. \int x^2 e^{3x} \, dx$$

$$89. \int x \sqrt{1+2x} \, dx$$

$$92. \int (\ln x)^2 \, dx$$

$$95. \int \operatorname{arctg} x \, dx$$

$$98. \int \operatorname{sen}(\ln x) \, dx$$

$$101. \int (x^2 - x) e^{-x} \, dx$$

$$104. \int e^x \cos x \, dx$$

$$107. \int \frac{x \, dx}{\cos^2 x}$$

$$110. \int x^2 \operatorname{sen} x \, dx$$

$$113. \int x^3 \ln x \, dx$$

$$116. \int (x-3) \operatorname{sen} x \, dx$$

$$84. \int x^2 \ln x \, dx$$

$$87. \int x e^x \, dx$$

$$90. \int x \operatorname{arctg} x \, dx$$

$$93. \int \operatorname{sen}(\ln x) \, dx$$

$$96. \int x^2 \cos x \, dx$$

$$99. \int \frac{2x \, dx}{\cos^2 x}$$

$$102. \int x^3 e^{x^2} \, dx$$

$$105. \int e^x \operatorname{sen} x \, dx$$

$$108. \int x \cos x \, dx$$

$$111. \int e^{-3x} \cos x \, dx$$

$$114. \int \frac{\ln(\ln x)}{x} \, dx$$

$$117. \int \ln(x + \sqrt{1+x^2}) \, dx$$

$$118. \int \frac{x \arcsen x}{\sqrt{1-x^2}} dx$$

$$119. \int x \arcsen x^2 dx$$

$$120. \int \sqrt{x} (\ln x)^2 dx$$

### INTEGRACIÓN DE FUNCIONES RACIONALES

$$121. \int \frac{2x-3}{x+2} dx$$

$$122. \int \frac{dx}{x^2-4}$$

$$123. \int \frac{x-1}{x^2+x-6} dx$$

$$124. \int \frac{2 dx}{x^2+5x+6}$$

$$125. \int \frac{x+1}{x(x-1)^2} dx$$

$$126. \int \frac{dx}{x^2+2x} \cdot 2$$

$$127. \int \frac{x^2+1}{x^2+x-6} dx$$

$$128. \int \frac{x^3-1}{x^2+x} dx$$

$$129. \int \frac{x^2+1}{x^2-1} dx \cdot 3$$

$$130. \int \frac{dx}{x^2(x+1)}$$

$$131. \int \frac{dx}{x^2-9}$$

$$132. \int \frac{x dx}{(x-1)^2(x+1)} \cdot 4$$

$$133. \int \frac{6 dx}{x(x-1)(x+2)}$$

$$134. \int \frac{x^2-x+1}{x^3-2x^2+x} dx$$

$$135. \int \frac{2x^2+2x-1}{x+1} dx \cdot 5$$

$$136. \int \frac{(2x^2-7x) dx}{x^3-3x^2+4}$$

$$137. \int \frac{(2x+4) dx}{x^2+2x-3}$$

$$138. \int \frac{dx}{(x+1)(x-2)^2(x+3)}$$

$$139. \int \frac{dx}{x^3+x^2}$$

$$140. \int \frac{(3x^2+2x+5) dx}{(x-2)^2(x+1)^2}$$

$$141. \int \frac{x^5+x^4-8}{x^3-4x} dx$$

$$142. \int \frac{x^2-1}{x^2+1} dx$$

$$143. \int \frac{(x-8) dx}{x^3-4x^2+4x}$$

$$144. \int \frac{x+1}{x^3-4x^2+5x-2} dx$$

$$145. \int \frac{dx}{x^3+x^2+x}$$

$$146. \int \frac{dx}{x^2+4}$$

$$147. \int \frac{dx}{x^2-2x+5}$$

$$148. \int \frac{3 dx}{x^3-1}$$

$$149. \int \frac{5x^2-2x+25}{x^3-6x^2+25x} dx$$

$$150. \int \frac{-2x dx}{(x-1)^2(x^2+1)}$$

### INTEGRALES VARIADAS

$$151. \int (x^3+3x^2+2x-3) dx$$

$$152. \int (e^x+3) dx$$

$$153. \int \left( e^{-x} + \sqrt[3]{x} - \frac{1}{\sqrt[3]{2x}} + \frac{1}{x^2} \right) dx$$

$$154. \int x^2 e^x dx$$

$$155. \int \frac{dx}{(3x+1)^4}$$

$$156. \int \frac{3+2x^2}{5+(3x+2/3)x^3} dx$$

$$157. \int \frac{(2x+1) dx}{(x^2+x)^3}$$

$$158. \int \frac{x}{\cos^2 x} dx$$

$$159. \int \frac{5 dx}{e^x+e^{-x}}$$

$$160. \int (1+\tan^2 x^2) x dx$$

$$161. \int \sen^2 x dx$$

$$162. \int \tag^2 x dx$$

$$163. \int (3+\tan^2 x) dx$$

$$164. \int \frac{\sqrt{1+x}}{\sqrt{1-x}} dx$$

$$165. \int \sqrt{2+x^2} x dx$$

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$$166. \int \frac{5 \cos x}{\sqrt{1 + \operatorname{sen} x}} dx$$

$$169. \int \frac{3x^3 dx}{\sqrt{x^2 + 1}}$$

$$172. \int \left( \frac{6x^2}{\operatorname{sen}^2 x^3} + \frac{4}{\cos^2 4x} \right) dx$$

$$175. \int \frac{x^2 dx}{x^3 + 4}$$

$$178. \int \frac{\operatorname{tg} x}{\cos^2 x} dx$$

$$181. \int \frac{x dx}{1 + (x^2 + 3)^2}$$

$$184. \int \frac{dx}{1 - \operatorname{sen} x}$$

$$187. \int x \cos(1 + x^2) dx$$

$$190. \int \frac{5e^x}{2 + e^x} dx$$

$$193. \int \frac{x dx}{x + \sqrt{x}}$$

$$196. \int \frac{2x}{9 + 5x^2} dx$$

$$199. \int \frac{\cos x}{\operatorname{sen}^3 x} dx$$

$$167. \int \frac{e^{3x} + e^x + 1}{e^x} dx$$

$$170. \int \frac{5^x}{3^x} dx$$

$$173. \int \frac{dx}{e^{2x+1}}$$

$$176. \int \frac{e^{3x}}{1 + e^{6x}} dx$$

$$179. \int \operatorname{tg} x dx$$

$$182. \int \frac{\ln x}{x} dx$$

$$185. \int e^{\operatorname{sen} x} \cos x dx$$

$$188. \int \frac{dx}{\sqrt{x}(1 + \sqrt{x})}$$

$$191. \int \frac{x - \sqrt{x}}{\sqrt{x} - \sqrt[3]{x}} dx$$

$$194. \int \frac{\operatorname{tg}^3 x}{\cos^2 x} dx$$

$$197. \int \frac{2x^3 + x^2 + 3x + 1}{x + 1} dx$$

$$200. \int \frac{2x dx}{\sqrt{1 - x^4}} dx$$

$$168. \int \frac{dx}{\sqrt{9 - x^2}}$$

$$171. \int \frac{\ln x}{x^2} dx$$

$$174. \int \frac{dx}{x^2 + 4}$$

$$177. \int e^{-5x^2} (-5x) dx$$

$$180. \int (\cos 5x - 3 \operatorname{sen} 2x) dx$$

$$183. \int (x - e^x \cos x) dx$$

$$186. \int \operatorname{sen}^3 x \cos^3 x dx$$

$$189. \int \frac{x + 9}{x^2 - 9} dx$$

$$192. \int \frac{dx}{1 - \operatorname{sen}^2 x}$$

$$195. \int \frac{e^{\operatorname{tg} x}}{\cos^2 x} dx$$

$$198. \int \frac{1 + \operatorname{sen}^2 x}{\operatorname{sen} x \cos x} dx$$