

## INTEGRALES

$$1. \int x^3 dx$$

$$4. \int (x^3 + 3) dx$$

$$7. \int \frac{dx}{x^2}$$

$$10. \int \frac{4 \sqrt[3]{x}}{3} dx$$

$$13. \int \sqrt[3]{x} (\sqrt{x} + 1) dx$$

$$16. \int \frac{dx}{x \sqrt{x}}$$

$$19. \int \operatorname{tg}^2 x dx$$

$$22. \int e^x \left( 1 + \frac{e^{-x}}{x} \right) dx$$

$$24. \int \left( \frac{1}{\sqrt{1-x^2}} - \frac{3}{1+x^2} \right) dx$$

$$25. \int \frac{dx}{\operatorname{sen}^2 x \cos^2 x}$$

$$28. \int \frac{dx}{3-x}$$

$$31. \int \frac{x^2 dx}{1+x^3}$$

$$34. \int e^x \sqrt{2+e^x} dx$$

$$37. \int \operatorname{sen} 5x dx$$

$$40. \int \frac{dx}{\cos^2 x \sqrt{1-\operatorname{tg}^2 x}}$$

$$43. \int 2^x dx$$

$$46. \int (e^x + e^{-x}) dx$$

$$49. \int \frac{dx}{\sqrt{25-x^2}}$$

$$52. \int \frac{(\operatorname{arctg} x)^3 dx}{1+x^2}$$

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

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

$$8. \int \frac{dx}{x^5}$$

$$11. \int \frac{dx}{\sqrt[4]{x}}$$

$$14. \int (x^2 - 2 \operatorname{sen} x + 8 \operatorname{cos} x) dx$$

$$17. \int \frac{(x+1)(x^2+3)}{x^3} dx$$

$$20. \int \left( \sqrt{x} + \frac{1}{\sqrt{x}} \right) dx$$

$$23. \int 5^x 3^x dx$$

$$26. \int \frac{2 - \operatorname{sen}^3 x}{\operatorname{sen}^2 x} dx$$

$$29. \int \frac{x dx}{2+x^2}$$

$$32. \int \frac{\operatorname{sen} 2x dx}{3 + \operatorname{sen}^2 x}$$

$$35. \int \frac{\ln x}{x} dx$$

$$38. \int 6x \operatorname{cos} x^2 dx$$

$$41. \int x^4 e^{x^5} dx$$

$$44. \int \frac{dx}{x^2+9}$$

$$47. \int \frac{e^{\sqrt{x}}}{\sqrt{x}}$$

$$50. \int \frac{dx}{2x^2+9}$$

$$53. \int \operatorname{sen}^5 x \operatorname{cos} x dx$$

$$3. \int \frac{x^4}{6} dx$$

$$6. \int \frac{x^3 - x^2 + 1}{x} dx$$

$$9. \int \frac{x^4 - 2x + 3}{x^6} dx$$

$$12. \int \left( \frac{8}{3} \sqrt[3]{x} + 3 \sqrt{x} \right) dx$$

$$15. \int \left( e^x + \frac{1}{x} \right) dx$$

$$18. \int (\operatorname{sec}^2 x + \operatorname{cos} x + x) dx$$

$$21. \int \frac{\operatorname{cos}^2 x - \operatorname{sen}^2 x}{\operatorname{sen}^2 x \operatorname{cos}^2 x} dx$$

$$27. \int \frac{dx}{3x+2}$$

$$30. \int \frac{2 dx}{(x+1)^3}$$

$$33. \int \frac{(x-3) dx}{\sqrt{x^2-6x+1}}$$

$$36. \int x^2 \sqrt{x^3+1} dx$$

$$39. \int \frac{\operatorname{cos} x dx}{1 + \operatorname{sen}^2 x}$$

$$42. \int \frac{(4-x^3) dx}{1+x^8}$$

$$45. \int e^{7x} dx$$

$$48. \int \frac{\operatorname{cos} x}{e^{\operatorname{sen} x}} dx$$

$$51. \int (2x+5)^9 dx$$

$$54. \int \frac{\operatorname{cos} x}{\sqrt[3]{\operatorname{sen}^2 x}} dx$$

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## 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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$180. \int (\cos 5x - 3 \sin 2x) dx$$

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

$$186. \int \sin^3 x \cos^3 x dx$$

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

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

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

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

## Área de Ciencias

http://selectividad.intergranada.com

## SOLUCIONES A LAS INTEGRALES

1.  $\frac{x^4}{4} + c$

3.  $\frac{x^5}{30} + c$

5.  $\frac{x^3}{3} + x^2 - \ln|x| + c$

7.  $-\frac{1}{x} + c$

9.  $-\frac{1}{x} + \frac{1}{2x^4} - \frac{3}{5x^5} + c$

11.  $\frac{4\sqrt[4]{x^3}}{3} + c$

13.  $\frac{6}{11}\sqrt[6]{x^{11}} + \frac{3}{4}\sqrt[3]{x^4} + c$

15.  $e^x + \ln|x| + c$

17.  $x + \ln|x| - \frac{3}{x} - \frac{3}{2x^2} + c$

19.  $\operatorname{tg} x - x + c$

21.  $-\operatorname{cotg} x - \operatorname{tg} x + c$

23.  $\frac{15^x}{\ln 15} + c$

25.  $\operatorname{tg} x - \operatorname{cotg} x + c$

27.  $\frac{1}{3} \ln|3x + 2| + c$

29.  $\frac{1}{2} \ln|2 + x^2| + c$

31.  $\frac{1}{3} \ln|1 + x^3| + c$

33.  $\sqrt{x^2 - 6x + 1} + c$

35.  $\frac{\ln^2 x}{2} + c$

37.  $-\frac{1}{5} \cos 5x + c$

39.  $\operatorname{arctg}(\operatorname{sen} x) + c$

41.  $\frac{e^{x^5}}{5} + c$

2.  $\frac{x^4}{12} + c$

4.  $\frac{x^4}{4} + 3x + c$

6.  $\frac{x^3}{3} + \frac{x^2}{2} + \ln|x| + c$

8.  $-\frac{1}{4x^4} + c$

10.  $\sqrt[3]{x^4} + c$

12.  $2\sqrt[3]{x^4} + 2\sqrt{x^3} + c$

14.  $\frac{x^3}{3} + 2 \cos x + 8 \operatorname{sen} x + c$

16.  $\frac{-2}{\sqrt{x}} + c$

18.  $\operatorname{tg} x + \operatorname{sen} x + \frac{x^2}{2} + c$

20.  $\frac{2\sqrt{x^3}}{3} + 2\sqrt{x} + c$

22.  $e^x + \ln|x| + c$

24.  $\operatorname{arcsen} x - 3 \operatorname{arctg} x + c$

26.  $-2 \operatorname{cotg} x + \cos x + c$

28.  $-\ln|3 - x| + c$

30.  $\frac{-1}{(x+1)^2} + c$

32.  $\ln|3 + \operatorname{sen}^2 x| + c$

34.  $\frac{2\sqrt{(2+e^x)^3}}{3} + c$

36.  $\frac{2\sqrt{(x^3+1)^3}}{9} + c$

38.  $3 \operatorname{sen} x^2 + c$

40.  $\operatorname{arc} \operatorname{sen}(\operatorname{tg} x) + c$

42.  $\operatorname{arc} \operatorname{tg} x^4 + c$

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| <p>43. <math>\frac{2^x}{\ln 2} + c</math></p> <p>45. <math>\frac{e^{7x}}{7} + c</math></p> <p>47. <math>2e^{\sqrt{x}} + c</math></p> <p>49. <math>\arcsen\left(\frac{x}{5}\right) + c</math></p> <p>51. <math>\frac{(2x+5)^{10}}{20} + c</math></p> <p>53. <math>\frac{\operatorname{sen}^6 x}{6} + c</math></p> <p>55. <math>\ln \ln x   + c</math></p> <p>57. <math>\frac{e^{2x}}{2} + 2x - \frac{e^{-2x}}{2} + c</math></p> <p>59. <math>\ln 5 + x \ln x  + c</math></p> <p>61. <math>\frac{-2\sqrt{(\cos x)^3}}{3} + c</math></p> <p>63. <math>\operatorname{sen} e^x + c</math></p> <p>65. <math>-2\sqrt{\cos x} + \frac{2\sqrt{(\cos x)^5}}{5} + c</math></p> <p>67. <math>\frac{1}{3\sqrt{2}} \operatorname{arc} \operatorname{tg}\left(\frac{x^3}{\sqrt{2}}\right) + c</math></p> <p>69. <math>\frac{4\sqrt{(3+\sqrt{x})^3}}{3} + c</math></p> <p>71. <math>-\frac{1}{4} e^{-x^4} + c</math></p> <p>73. <math>\frac{1}{2} \operatorname{arc} \operatorname{sen} x^2 + c</math></p> <p>75. <math>-\frac{\ln^2(\cos x)}{2} + c</math></p> <p>77. <math>\frac{1}{2} e^{2 \operatorname{tg} x} + c</math></p> <p>79. <math>-\sqrt{2 - \cos 2x} + c</math></p> <p>81. <math>e^{-\operatorname{sen} x} + c</math></p> <p>83. <math>\frac{x \operatorname{sen} 3x}{3} + \frac{\cos 3x}{9} + c</math></p> <p>85. <math>x^3 e^x - 3x^2 e^x + 6x e^x + 6 e^x + c</math></p> | <p>44. <math>\frac{1}{3} \operatorname{arc} \operatorname{tg} \frac{x}{3} + c</math></p> <p>46. <math>e^x - e^{-x} + c</math></p> <p>48. <math>-e^{-\operatorname{sen} x} + c</math></p> <p>50. <math>\frac{1}{3\sqrt{2}} \operatorname{arc} \operatorname{tg}\left(\frac{\sqrt{2} x}{3}\right) + c</math></p> <p>52. <math>\frac{(\operatorname{arc} \operatorname{tg} x)^4}{4} + c</math></p> <p>54. <math>3 \sqrt[3]{\operatorname{sen} x} + c</math></p> <p>56. <math>2 \operatorname{sen} \sqrt{x} + c</math></p> <p>58. <math>\frac{(\operatorname{arc} \cos x)^2}{2} + c</math></p> <p>60. <math>\frac{\operatorname{tg}^3 x}{3} + \frac{\operatorname{tg}^2 x}{2} + c</math></p> <p>62. <math>e^{e^x} + c</math></p> <p>64. <math>\operatorname{arc} \operatorname{tg}(x+1) + c</math></p> <p>66. <math>-\cos(\ln x) + c</math></p> <p>68. <math>\operatorname{arc} \operatorname{sen}(\ln x) + c</math></p> <p>70. <math>-\frac{1}{2 \operatorname{sen}^2 x} - \ln \operatorname{sen} x  + c</math></p> <p>72. <math>-\frac{1}{e^x - 1} + c</math></p> <p>74. <math>\frac{1}{3} \sqrt{(1+x^2)^3} + c</math></p> <p>76. <math>\frac{\ln^2(\ln x)}{2} + c</math></p> <p>78. <math>\frac{1}{\cos x} + c</math></p> <p>80. <math>-\frac{\cos^3 x}{3} + \frac{\cos^5 x}{5} + c</math></p> <p>82. <math>-x \cos x + \operatorname{sen} x + c</math></p> <p>84. <math>\frac{x^3 \ln x}{3} - \frac{x^3}{9} + c</math></p> <p>86. <math>\frac{x^2 e^{3x}}{3} - \frac{2}{9} x e^{3x} + \frac{2}{27} e^{3x} + c</math></p> |
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| <p>87. <math>x e^x - e^x + c</math></p> <p>89. <math>\frac{x \sqrt{(1+2x)^3}}{3} - \frac{1}{15} \sqrt{(1+2x)^5} + c</math></p> <p>91. <math>-x^2 \cos x + 2x \operatorname{sen} x + 2 \cos x + c</math></p> <p>93. <math>2\sqrt{x} e^{\sqrt{x}} - 2e^{\sqrt{x}} + c</math></p> <p>95. <math>x \operatorname{arc} \operatorname{tg} x - \frac{1}{2} \ln  1+x^2  + c</math></p> <p>97. <math>2x \sqrt{1+x} - \frac{4 \sqrt{(1+x)^3}}{3} + c</math></p> <p>99. <math>2x \operatorname{tg} x + 2 \ln  \cos x  + c</math></p> <p>101. <math>-e^{-x} (x^2 - x) - e^{-x} (2x - 1) - 2e^{-x} + c</math></p> <p>103. <math>x \ln x - x + c</math></p> <p>105. <math>\frac{e^x \operatorname{sen} x - e^x \cos x}{2} + c</math></p> <p>107. <math>x \operatorname{tg} x + \ln  \cos x  + c</math></p> <p>109. <math>-\frac{\ln x}{2x^2} - \frac{1}{4x^2} + c</math></p> <p>111. <math>\frac{e^{-3x} \operatorname{sen} x}{10} - \frac{3e^{-3x} \cos x}{10} + c</math></p> <p>113. <math>\frac{x^4}{4} \ln  x  - \frac{x^4}{16} + c</math></p> <p>115. <math>-2x \sqrt{1-x} - \frac{4\sqrt{(1-x)^3}}{3} + c</math></p> <p>117. <math>x \ln \left  x + \sqrt{1+x^2} \right  - \sqrt{1+x^2} + c</math></p> <p>119. <math>\frac{x^2}{2} \operatorname{arcsen} x^2 + \frac{1}{2} \sqrt{1-x^4} + c</math></p> <p><math>\frac{2}{3} \sqrt{x^3} (\ln x)^2 - \frac{8}{9} \sqrt{x^3} (\ln x) + \frac{16}{27} \sqrt{x^3} + c</math></p> <p>121. <math>2x - 7 \ln  x+2  + c</math></p> <p>123. <math>\frac{4}{5} \ln  x+3  + \frac{1}{5} \ln  x-2  + c</math></p> <p>125. <math>\ln  x  + \ln  x-1  - \frac{2}{x-1} + c</math></p> <p>127. <math>x + \ln  x-2  - 2 \ln  x+3  + c</math></p> | <p>88. <math>x \operatorname{arc} \operatorname{sen} x + \sqrt{1-x^2} + c</math></p> <p>90. <math>\frac{x^2 \operatorname{arc} \operatorname{tg} x}{2} - \frac{x}{2} + \frac{\operatorname{arc} \operatorname{tg} x}{2} + c</math></p> <p>92. <math>x (\ln x)^2 - 2x \ln x + 2x + c</math></p> <p>94. <math>\frac{2 \sqrt{x^3} \ln x}{3} - \frac{4 \sqrt{x^3}}{9} + c</math></p> <p>96. <math>x^2 \operatorname{sen} x + 2x \cos x - 2 \operatorname{sen} x + c</math></p> <p>98. <math>\frac{x \operatorname{sen}(\ln x) - x \cos(\ln x)}{2} + c</math></p> <p>100. <math>2\sqrt{x} \ln x - 4\sqrt{x} + c</math></p> <p>102. <math>x^2 \frac{e^{x^2}}{2} - \frac{e^{x^2}}{2} + c</math></p> <p>104. <math>\frac{e^x \cos x + e^x \operatorname{sen} x}{2} + c</math></p> <p>106. <math>-\frac{x e^{-3x}}{3} - \frac{e^{-3x}}{9} + c</math></p> <p>108. <math>x \operatorname{sen} x + \cos x + c</math></p> <p>110. <math>-x^2 \cos x + 2x \operatorname{sen} x + 2 \cos x + c</math></p> <p>112. <math>\frac{x^2}{2} (\ln x)^2 - \frac{x^2}{2} \ln x + \frac{x^2}{4} + c</math></p> <p>114. <math>\ln  x  \cdot \ln(\ln  x ) - \ln  x  + c</math></p> <p>116. <math>-(x-3) \cos x + \operatorname{sen} x + c</math></p> <p>118. <math>-\sqrt{1-x^2} \operatorname{arcsen} x + x + c</math></p> <p>120. <math>\frac{1}{4} \ln \left  \frac{x-2}{x+2} \right  + c</math></p> <p>124. <math>2 \ln  x+2  - 2 \ln  x+3  + c</math></p> <p>126. <math>\frac{1}{2} \ln  x  - \frac{1}{2} \ln  x+2  + c</math></p> <p>128. <math>\frac{x^2}{2} - x - \ln  x  + 2 \ln  x+1  + c</math></p> |
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| <p>129. <math>x - \ln x+1  + \ln x-1  + c</math></p> <p>131. <math>\frac{1}{6} \ln\left \frac{x-3}{x+3}\right  + c</math></p> <p>133. <math>-3 \ln x  + 2 \ln x-1  + \ln x+2  + c</math></p> <p>135. <math>x^2 - \ln x+1  + c</math></p> <p>137. <math>\frac{1}{2} \ln x+3  + \frac{3}{2} \ln x-1  + c</math></p> <p>139. <math>-\ln x  - \frac{1}{x} + \ln x+1  + c</math></p> <p>141. <math>\frac{x^3}{3} + \frac{x^2}{2} + 4x + \ln\left \frac{x^2(x-2)^5}{(x+2)^3}\right  + c</math></p> <p>143. <math>2 \ln\left \frac{x-2}{x}\right  + \frac{3}{x-2} + c</math></p> <p>145. <math>\ln x  - \frac{1}{2} \ln x^2+x+1  - \frac{\sqrt{3}}{3} \operatorname{arctg}\left(\frac{2x+1}{\sqrt{3}}\right) + c</math></p> <p>147. <math>\frac{1}{2} \operatorname{arctg}\left(\frac{x-1}{2}\right) + c</math></p> <p>149. <math>\ln x  + 2 \ln x^2-6x+25  + 4 \operatorname{arctg}\frac{x-3}{4} + c</math></p> <p>151. <math>\frac{x^4}{4} + x^3 + x^2 - 3x + c</math></p> <p>153. <math>-e^{-x} + \frac{3\sqrt[3]{x^4}}{4} - \frac{3\sqrt[3]{(2x)^2}}{4} - \frac{1}{x} + c</math></p> <p>155. <math>\frac{-1}{9(3x+1)^3} + c</math></p> <p>157. <math>\frac{-1}{2(x^2+x)^2} + c</math></p> <p>159. <math>5 \operatorname{arctg} e^x + c</math></p> <p>161. <math>\frac{1}{2} \left(x - \frac{\operatorname{sen} 2x}{2}\right) + c</math></p> <p>163. <math>2x + \operatorname{tg} x + c</math></p> <p>165. <math>\frac{\sqrt{(2+x^2)^3}}{3} + c</math></p> <p>167. <math>\frac{e^{2x}}{2} + x - e^{-x} + c</math></p> | <p>130. <math>\ln\left \frac{x+1}{x}\right  - \frac{1}{x} + c</math></p> <p>132. <math>\frac{1}{4} \ln\left \frac{x+1}{x-1}\right  - \frac{1/2}{x-1} + c</math></p> <p>134. <math>\ln x  - \frac{1}{x-1} + c</math></p> <p>136. <math>\ln x+1  + \ln x-2  + \frac{2}{x-2} + c</math></p> <p>138. <math>\ln x+1  - \frac{3}{x-2} - 2 \ln x+2  + c</math></p> <p>140. <math>-\frac{7}{3(x-2)} - \frac{2}{3(x+1)} + c</math></p> <p>142. <math>x - 2 \operatorname{arctg} x + c</math></p> <p>144. <math>-3 \ln x-1  + \frac{2}{x-1} + 3 \ln x-2  + c</math></p> <p>146. <math>\frac{1}{2} \operatorname{arctg}\left(\frac{x}{2}\right) + c</math></p> <p>148. <math>\ln\left \frac{x-1}{\sqrt{x^2+x+1}}\right  - \sqrt{3} \operatorname{arctg}\left(\frac{2x+1}{\sqrt{3}}\right) + c</math></p> <p>150. <math>\frac{1}{x-1} + \operatorname{arctg} x + c</math></p> <p>152. <math>e^x + 3x + c</math></p> <p>154. <math>x^2 e^x - 2x e^x + 2 e^x + c</math></p> <p>156. <math>\ln\left 5 + 3x + \frac{2}{3}x^3\right  + c</math></p> <p>158. <math>x \operatorname{tg} x + \ln \cos x  + c</math></p> <p>160. <math>\frac{1}{2} \operatorname{tg} x^2 + c</math></p> <p>162. <math>\operatorname{tg} x - x + c</math></p> <p>164. <math>\operatorname{arcsen} x - \sqrt{1-x^2} + c</math></p> <p>166. <math>10 \sqrt{1 + \operatorname{sen} x} + c</math></p> <p>168. <math>\operatorname{arc} \operatorname{sen} \left(\frac{x}{3}\right) + c</math></p> |
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$$169. 3x^2 \sqrt{x^2+1} - 2\sqrt{(x^2+1)^3} + c$$

$$171. -\frac{\ln x}{x} - \frac{1}{x} + c$$

$$173. -\frac{1}{2} e^{-2x-1} + c$$

$$175. \frac{1}{3} \ln|x^3+4| + c$$

$$177. \frac{1}{2} e^{-5x^2} + c$$

$$179. -\ln|\cos x| + c$$

$$181. \frac{1}{2} \operatorname{arctg}(x^2+3) + c$$

$$183. \frac{x^2}{2} - \frac{e^x \cos x + e^x \operatorname{sen} x}{2} + c$$

$$185. e^{\operatorname{sen} x} + c$$

$$187. \frac{1}{2} \operatorname{sen}(1+x^2) + c$$

$$189. 2 \ln|x-3| - \ln|x+3| + c$$

$$191. \frac{2\sqrt[6]{x^9}}{3} + \frac{3\sqrt[3]{x^4}}{4} + \frac{6\sqrt[6]{x^7}}{7} + c$$

$$193. x - \sqrt{x} - 2 \ln|\sqrt{x}+1| + c$$

$$195. e^{\operatorname{tg} x} + c$$

$$197. \frac{2x^3}{3} - \frac{x^2}{2} + 4x - 3 \ln|x+1| + c$$

$$199. \frac{-1}{2 \operatorname{sen}^2 x} + c$$

$$170. \left(\frac{5}{3}\right)^x \cdot \frac{1}{\ln(5/3)} + c$$

$$172. -2 \operatorname{cotg}(x^3) + \operatorname{tg}(4x) + c$$

$$174. \frac{1}{2} \operatorname{arctg}\left(\frac{x}{2}\right) + c$$

$$176. \frac{1}{3} \operatorname{arctg}(e^{3x}) + c$$

$$178. \frac{\operatorname{tg}^2 x}{2} + c$$

$$180. \frac{\operatorname{sen} 5x}{5} + \frac{3 \cos 2x}{2} + c$$

$$182. \frac{\ln^2|x|}{2} + c$$

$$184. \frac{2}{1 - \operatorname{tg}(x/2)} + c$$

$$186. \frac{\operatorname{sen}^4 x}{4} - \frac{\operatorname{sen}^6 x}{6} + c$$

$$188. 2 \ln|1+\sqrt{x}| + c$$

$$190. 5 \ln|2+e^x| + c$$

$$192. \operatorname{tg}(x) + c$$

$$194. \frac{\operatorname{tg}^4 x}{4} + c$$

$$196. \frac{1}{5} \ln|9+5x^2| + c$$

$$198. \ln|\operatorname{sen} x| - 2 \ln|\cos x| + c$$

$$200. \operatorname{arcsen}(x^2) + c$$