
Cálculo

(Ingeniería Informática - I. T. Informática de Sistemas)

Cálculo de Primitivas

Calcular las siguientes primitivas:

- $I = \int \sqrt{\sqrt[3]{\sqrt{x^2 - 10x + 25}}} dx$
- $I = \int \frac{\sin(s) - \cos(s)}{\sin(s) + \cos(s)} ds$
- $I = \int \frac{dt}{(1 + t^2) \operatorname{arctg}(t)}$
- $I = \int e^{u^3+5} u^2 du$
- $I = \int \frac{e^{\ln(z)}}{z} dz$
- $I = \int \frac{\cos(\operatorname{tg}(x))}{\cos^2(x)} dx$
- $I = \int \frac{\sin(\sqrt{x})}{\sqrt{x}} dx$
- $I = \int \frac{dt}{\cos^2(2t + 5)}$
- $I = \int 3 \sec^2(2t + 6) dt$
- $I = \int \frac{dz}{\cos^2(z)(1 + \operatorname{tg}^2(z))}$
- $I = \int \frac{3z + 27}{1 + (3z + 27)^4} dz$
- $I = \int \frac{1}{4z^2 + 4z + 2} dz$
- $I = \int \frac{u^3 + 1}{u^2 - 5u + 4} du$
- $I = \int u \operatorname{arctg}(u) du$
- $I = \int x \ln(1 + x) dx$
- $I = \int \frac{dx}{x \ln(x)}$
- $I = \int \operatorname{cotg}(x) dx$
- $I = \int \frac{1}{x \cos^2(\ln(x^7))} dx$
- $I = \int \operatorname{tg}^3(x) + \operatorname{tg}^5(x) dx$
- $I = \int \cos^3(s) ds$
- $I = \int \frac{3^s}{2^s} ds$
- $I = \int \operatorname{tg}^2(x) dx$
- $I = \int \frac{1}{\sqrt{z}\sqrt{1-z}} dz$
- $I = \int \frac{5^{\sqrt{x}}}{\sqrt{x}} dx$
- $I = \int 4^{\sin(u)} \cos(u) du$
- $I = \int \frac{\sin(\ln(u))}{u} du$
- $I = \int \frac{3 \sin(\operatorname{tg}(3t))}{\cos^2(3t)} dt$
- $I = \int \frac{x \cos(\sqrt{1+x^2})}{\sqrt{1+x^2}} dx$
- $I = \int \frac{dx}{(1+x) \sin^2(\ln(1+x))}$
- $I = \int \frac{x^2}{7+x^6} dx$

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31. $I = \int \frac{1}{\sqrt{x}(5+x)} dx$
32. $I = \int \frac{2 \sin(x) \cos(x)}{9 + \sin^4(x)} dx$
33. $I = \int \frac{dx}{\sqrt{9-5x^2}}$
34. $I = \int \frac{1}{\sqrt{3+2x-x^2}} dx$
35. $I = \int s \ln(1+s^2) ds$
36. $I = \int \frac{s^2}{1+s^6} ds$
37. $I = \int \sqrt{4-x^2} dx$
38. $I = \int \frac{x+3}{\sqrt{9-x^2}} dx$
39. $I = \int t(\sin(2t) + \ln(1+t^2)) dt$
40. $I = \int \frac{1 + \ln^3(t)}{t(\ln^2(t) - \ln(t))} dt$
41. $I = \int \frac{\sqrt{7+2 \operatorname{tg}(t)}}{\cos^2(t)} dt$
42. $I = \int e^t(t^2 - 2t - 1) dt$
43. $I = \int \frac{x^3 - 2x^2 + x - 1}{x^2 - 3x + 2} dx$
44. $I = \int \frac{dx}{\sqrt[3]{x^2}(\sqrt[3]{x^2} + \sqrt[3]{x} + 1)}$
45. $I = \int \frac{e^w}{e^{2w} + e^w - 2} dw$
46. $I = \int (1+w^2) \ln(w) dw$
47. $I = \int \frac{x^3 - x}{x^2 + 4x + 13} dx$
48. $I = \int x \ln^2(x) dx$
49. $I = \int \frac{x}{4-x^2} dx$
50. $I = \int \frac{x^2 + 3x + 2}{(x-1)(x^2 + 2x + 2)} dx$
51. $I = \int \frac{dz}{\cos^4(z)}$
52. $I = \int z^2 \sqrt{z+1} dz$
53. $I = \int \frac{z}{z - \sqrt{z^2 - 1}} dz$
54. $I = \int \frac{1}{1+e^z} dz$
55. $I = \int \frac{1}{1+\sqrt{z+1}} dz$
56. $I = \int (z^2 \ln(z) - z \ln(z^2)) dz$
57. $I = \int \frac{\sqrt{1+\ln(x)}}{x} dx$
58. $I = \int \frac{e^{3x} \operatorname{tg}^5(e^{3x})}{\cos^2(e^{3x})} dx$
59. **(FEB98)** $I = \int x \arcsin(x) dx$
60. **(SEP99)** $I = \int \frac{2x+1}{(x^2+5x+6)^2} dx$
61. **(FEB99)** $I = \int \frac{x^3}{x^4+x^2+1} dx$
62. **(DIC98)** $I = \int \frac{x^2-x+3}{(x+2)^2} dx$
63. **(DIC99)** $I = \int \frac{\cos^3(x)}{1+\sin^2(x)} dx$
64. **(FEB00)** $I = \int \frac{\sin^2(x) \operatorname{tg}(x)}{4+\cos^2(x)} dx$
65. **(SEP00)** $I = \int \frac{4x^2-3x+12}{(x-3)^2(x^2+x+1)} dx$