100 интегралов

$$\frac{1.\int \frac{dx}{\sqrt{2x-1}}}{2.\int \frac{dx}{(x+1)^2}} \quad 3.\int 5^{2x-1} dx \quad 4.\int \sqrt{\frac{x+1}{x}} dx \quad 5.\int \frac{dx}{\cos^2(x-\frac{\pi}{4})} \quad 6.\int \frac{\ln x dx}{x} \quad 7.\int 3^x \cdot e^{x+1} dx$$

8.
$$\int \frac{(1+\sqrt{x})^2}{x} dx$$
 9. $\int \frac{\sqrt[3]{x^2}-x+1}{\sqrt{x}} dx$ **10.** $\int \frac{3\cdot 2^x-2\cdot 3^x}{5^{2x}} dx$ **11.** $\int \frac{x^3}{(x+1)^2} dx$ **12.** $\int \frac{xdx}{\sqrt{x^2+1}}$ **13.** $\int \frac{dx}{2x-1}$

14.
$$\int (4x+1)^7 dx$$
 15. $\int \sqrt[5]{(8-3x)^3} dx$ **16.** $\int \sqrt[3]{x-5} dx$ **17.** $\int e^{1-3x} dx$ **18.** $\int \frac{dx}{1+9x^2}$ **19.** $\int xe^{-x^2} dx$

20.
$$\int e^{5x-1} dx$$
 21. $\int \frac{dx}{\sin^4 x + \cos^4 x}$ **22.** $\int (\arcsin x + \arccos x) dx$ **23.** $\int \frac{dx}{1 + \cos^2 x}$ **24.** $\int \frac{\cos 2x dx}{\sin^2 x \cos^2 x}$

25.
$$\int \cot^2 x dx$$
 26. $\int \frac{dx}{\cos^2 x - \cos 2x}$ 27. $\int \frac{1 + \cos^2 x}{1 + \cos 2x} dx$ 28. $\int \frac{\sin x dx}{\cos^3 x}$ 29. $\int \tan x dx$ 30. $\int \sin^2 3x dx$

31.
$$\int \frac{\sin 2x dx}{1 + \cos^2 x}$$
 32. $\int \cos x \cdot e^{\sin x} dx$ 33. $\int \sin^4 x dx$ 34. $\int \sin x \sin 5x dx$ 35. $\int \cos^3 x dx$ 36. $\int \cos^6 x dx$

37.
$$\int \frac{\cos 2x dx}{1 + \sin x \cos x}$$
 38. $\int \sin^5 x dx$ 39. $\int \frac{dx}{1 + \sin^2 x}$ 40. $\int \frac{dx}{\cos x}$ 41. $\int \frac{dx}{\cos^4 x}$ 42. $\int \frac{dx}{3\sin^2 x + 4\cos^2 x}$

43.
$$\int \text{ctg}\left(x - \frac{\pi}{8}\right) dx$$
 44. $\int \frac{\cos x}{\sqrt[3]{\sin^2 x}} dx$ **45.** $\int \sin 2x \cdot e^{\cos 2x} dx$ **46.** $\int \frac{\sqrt{x} + \sqrt[3]{x}}{x} dx$ **47.** $\int x\sqrt{1 - x^2} dx$

48.
$$\int 3^{-x} dx$$
 49. $\int \frac{x}{x^4 + 1} dx$ **50.** $\int \sqrt{\frac{1 - x}{1 + x}} dx$ **51.** $\int \frac{e^x dx}{e^{2x} + 9}$ **52.** $\int \frac{dx}{x \ln x}$ **53.** $\int \frac{x dx}{x - \sqrt{x^2 - 1}}$

54.
$$\int x\sqrt[3]{1+x}dx$$
 55. $\int \frac{dx}{1-4x^2}$ **56.** $\int \frac{dx}{\sqrt{4-9x^2}}$ **57.** $\int \frac{x\sqrt{1+x}}{\sqrt{1-x}}dx$ **58.** $\int \frac{1+x}{\sqrt{1-x^2}}dx$

59.
$$\int \frac{1+x-x^2}{\sqrt{(1-x^2)^3}} dx$$
 60. $\int x \cos x dx$ **61.** $\int \arccos x dx$ **62.** $\int x \arctan x dx$ **63.** $\int x^2 e^x dx$ **64.** $\int \ln x dx$

65.
$$\int \sqrt{x^2 + 1} dx$$
 66. $\int e^{2x} \cdot \sin 3x dx$ **67.** $\int \frac{3x - 1}{x^2 + 9} dx$ **68.** $\int \frac{dx}{(x^2 + 1)^2}$ **69.** $\int \ln^2 x dx$ **70.** $\int \frac{x^2 dx}{(x^2 + 1)^2}$

71.
$$\int \frac{x^3 dx}{\sqrt{x-1}}$$
 72. $\int \frac{dx}{x\sqrt{x+1}}$ 73. $\int \frac{dx}{1+\sqrt{x}}$ 74. $\int \frac{dx}{\sqrt{x}+\sqrt[3]{x}}$ 75. $\int \frac{x^2 dx}{x+1}$ 76. $\int \frac{(3-4x)dx}{2x^2-3x+1}$

77.
$$\int \frac{(x-3)dx}{\sqrt{3-2x-x^2}}$$
 78. $\int \frac{dx}{\sqrt{9x^2-6x+2}}$ 79. $\int \frac{\sqrt{x}dx}{\sqrt{2x+3}}$ 80. $\int \frac{dx}{x^4+x^2+1}$ 81. $\int \frac{\sqrt{x}}{1-\sqrt{x}}dx$

82.
$$\int \frac{dx}{x(x^2+1)}$$
 83. $\int \sqrt{\frac{2x-1}{2x+3}} dx$ 84. $\int \frac{dx}{x^3-1}$ 85. $\int \frac{dx}{x^2(x^2+1)}$ 86. $\int \frac{dx}{(x+1)^2(x^2+1)}$

87.
$$\int \frac{(x^3 - 6)dx}{x^4 + 6x^2 + 8}$$
 88. $\int \frac{x^3dx}{(x^2 - 1)^2}$ 89. $\int \frac{x^5dx}{(x^2 - 1)(x - 1)^2}$ 90. $\int \frac{x^2dx}{1 - x^4}$ 91. $\int \sqrt{1 - 4x - x^2} dx$

92.
$$\int \sqrt{x^2 - 2x - 1} dx$$
 93. $\int \frac{dx}{2\sin x + 3\cos x}$ **94.** $\int \frac{dx}{x^2 \left(x + \sqrt{x^2 + 1}\right)}$ **95.** $\int \frac{x - \arctan^3 x dx}{1 + x^2}$

96.
$$\int x\sqrt{x^2 + 2x}dx$$
 97. $\int \frac{dx}{x - \sqrt{x^2 - 1}}$ **98.** $\int \frac{\sqrt{1 - x^2}}{x^2}dx$ **99.** $\int \frac{dx}{\sqrt{\arccos x \cdot (1 - x^2)}}$ **100.** $\int \frac{1 + x}{x(x + \ln x)}dx$