

Määramata integraali leidmine. Määratud integraali leidmine

Leida antud integraalid

Vastused:

1) $\int (5x^4 + 10x - \frac{x^5}{5} + 40)dx$	$x^5 + 5x^2 - \frac{x^6}{30} + 40x + C$
2) $\int (\frac{7}{x^2} - \frac{1}{8x^5})dx$	$-\frac{7}{x} + \frac{2}{32x^4} + C$
3) $\int (x^9 - 10 \cdot 11^x)dx$	$\frac{x^{10}}{10} - \frac{10 \cdot 11^x}{\ln 11} + C$
4) $\int (\frac{e^x}{2} + 16\sin x - \frac{14}{\cos^2 x})dx$	$\frac{1}{2}e^x - 16\cos x - 14\tan x + C$
5) $\int \left(3\sqrt{n} - \frac{6}{n}\right)dn$	$2\sqrt{n^3} - 6\ln n + C$
6) $\int (12\sqrt{x} + 1, 2e^x + \frac{6}{x})dx$	$8\sqrt{x^3} + 1, 2e^x + 6\ln x + C$
7) $\int \frac{dx}{12\sqrt[9]{x^2}}$	$\frac{3}{28}\sqrt[9]{x^7} + C$
8) $\int (m^2x + ax)da$	$m^2xa + \frac{xa^2}{2} + C$
9) $\int_{-3}^1 (4 - t^3)dt$	36
10) $\int_1^2 (3x^2 + 2x + 5)dx$	15
11) $\int_{-\pi}^{2\pi} (5\cos\theta - 12\sin\theta)d\theta$	24
12) $\int_0^1 (2 \cdot 7^t - 4 \cdot e^t)dt$	$\frac{12}{\ln(7)} - 4(e-1)$ $\approx -0.70634 \dots$