Integrujte

(1) $\int \frac{2}{(2-3x)^2+4}\,\mathrm{d}x.$

(2) $\int \frac{2}{(2-x)^2+1}\,\mathrm{d}x.$

(3) $\int \frac{3x^2+4}{x^2+16}\,\mathrm{d}x.$

(4) $\int \frac{-3}{9+(4-x)^2}\,\mathrm{d}x.$

(5) $\int \frac{3x-1}{x^2+1}\,\mathrm{d}x.$

(6) $\int \frac{2x-3}{1-3x+x^2}\,\mathrm{d}x.$

(7) $\int \frac{-3x}{9-x^2}\,\mathrm{d}x.$

(8) $\int \frac{1}{(3x-2)^2+1}\,\mathrm{d}x.$

(9) $\int \frac{x-1}{x^2+4}\,\mathrm{d}x.$

(10) $\int \frac{x-2}{3-2x}\,\mathrm{d}x.$

(11) $\int \frac{2}{\left(\frac{x}{3}-1\right)^2+4}\,\mathrm{d}x.$

(12) $\int \frac{2-x}{3x+2}\,\mathrm{d}x.$

(13) $\int \frac{x-1}{x-x^2}\,\mathrm{d}x.$

(14) $\int \frac{2}{(2-x)^3}\,\mathrm{d}x.$

(15) $\int \frac{3}{(x+1)^2}\,\mathrm{d}x.$

(16) $\int \frac{18x-6}{(3x-1)^2-7}\,\mathrm{d}x.$

(17) $\int \frac{2x-3}{x^2+1}\,\mathrm{d}x.$

(18) $\int \frac{-2}{(4-x)^2}\,\mathrm{d}x.$

(19) $\int \frac{x^2-1}{x^2+4}\,\mathrm{d}x.$

(20) $\int \frac{1-3x}{3x^2-2x+1}\,\mathrm{d}x.$

(21) $\int \frac{2x-1}{x-x^2}\,\mathrm{d}x.$

(22) $\int \frac{3x-1}{1-x}\,\mathrm{d}x.$

(23) $\int \frac{2x+4}{(x+2)^2+9}\,\mathrm{d}x.$

(24) $\int \frac{4}{(3x+2)^2+9}\,\mathrm{d}x.$

(25) $\int \frac{x^2-3}{x^2+4}\,\mathrm{d}x.$

(26) $\int \frac{3x-2}{x^2+9}\,\mathrm{d}x.$

(27) $\int \frac{1}{2x+3}\,\mathrm{d}x.$

(28) $\int \frac{2x}{15-x^2}\,\mathrm{d}x.$

(29) $\int \frac{x-1}{x+3}\,\mathrm{d}x.$

(30) $\int \frac{2x-1}{3x+1}\,\mathrm{d}x.$

Integrujte

(1) $\int \frac{2}{(2-3x)^2+4}\,\mathrm{d}x = -\frac{1}{3}\operatorname{arctg}\left(\frac{2-3x}{2}\right)+c.$

(2) $\int \frac{2}{(2-x)^2+1}\,\mathrm{d}x = -2\operatorname{arctg}(2-x)+c.$

(3) $\int \frac{3x^2+4}{x^2+16}\,\mathrm{d}x = 3x-11\operatorname{arctg}\left(\frac{x}{4}\right)+c.$

(4) $\int \frac{-3}{9+(4-x)^2}\,\mathrm{d}x = -\operatorname{arctg}\left(\frac{x-4}{3}\right)+c.$

(5) $\int \frac{2x-1}{x^2+1}\,\mathrm{d}x = \frac{3}{2}\ln\left(x^2+1\right)-\operatorname{arctg}(x)+c.$

(6) $\int \frac{2x-3}{1-3x+x^2}\,\mathrm{d}x = \ln\left|x^2-3x+1\right|+c.$

(7) $\int -\frac{3x}{9-x^2}\,\mathrm{d}x = \frac{3}{2}\ln\left(x^2-9\right)+c.$

(8) $\int \frac{1}{(3x-2)^2+1}\,\mathrm{d}x = \frac{1}{3}\operatorname{arctg}(3x-2)+c.$

(9) $\int \frac{x-1}{x^2+4}\,\mathrm{d}x = \frac{1}{2}\ln\left(x^2+4\right)-\frac{1}{2}\operatorname{arctg}\left(\frac{x}{2}\right)+c.$

(10) $\int \frac{x-2}{3-2x}\,\mathrm{d}x = -\frac{1}{2}x+\frac{1}{4}\ln|3-2x|+c = \frac{1}{4}(-2x+\ln(3-2x)+3)+c.$

(11) $\int \frac{2}{\left(\frac{x}{3}-1\right)^2+4}\,\mathrm{d}x = 3\operatorname{arctg}\left(\frac{x-3}{6}\right)+c.$

(12) $\int \frac{2-x}{3x+2}\,\mathrm{d}x = -\frac{1}{3}x-\frac{8}{9}\ln|3x+2|+c = \frac{1}{9}(-3x+8\ln(3x+2)-2)+c.$

(13) $\int \frac{x-1}{x-x^2}\,\mathrm{d}x = -\ln(x)+c.$

(14) $\int \frac{2}{(2-x)^3}\,\mathrm{d}x = \frac{1}{(x-2)^2}+c.$

(15) $\int \frac{3}{(x+1)^2}\,\mathrm{d}x = -\frac{3}{x+1} + c.$

(16) $\int \frac{18x-6}{(3x-1)^2-7}\,\mathrm{d}x = \ln\left|(3x-1)^2-7\right| + c = \ln\left|-3x^2+2x+2\right| + c.$

(17) $\int \frac{2x-3}{x^2+1}\,\mathrm{d}x = \ln\left|x^2+1\right| - 3\,\mathrm{arctg}(x) + c.$

(18) $\int \frac{-2}{(4-x)^2}\,\mathrm{d}x = \frac{2}{4-x} + c.$

(19) $\int \frac{x^2-1}{x^2+4}\,\mathrm{d}x = x - \frac{5}{2}\,\mathrm{arctg}\left(\frac{x}{2}\right) + c.$

(20) $\int \frac{1-3x}{3x^2-2x+1}\,\mathrm{d}x = -\frac{1}{2}l\left|3x^2-2x+1\right| + c.$

(21) $\int \frac{2x-1}{x-x^2}\,\mathrm{d}x = -\ln(x-x^2) + c.$

(22) $\int \frac{3x-1}{1-x}\,\mathrm{d}x = -3x - 2\ln(1-x) + c = -3(x-1) - 2\ln(x-1) + c.$

(23) $\int \frac{2x+4}{(x+2)^2+9}\,\mathrm{d}x = \log\left((x+2)^2+9\right) + c.$

(24) $\int \frac{4}{(3x+2)^2+9}\,\mathrm{d}x = \frac{4}{9}\,\mathrm{arctg}\left(\frac{3x+2}{3}\right) + c.$

(25) $\int \frac{x^2-3}{x^2+4}\,\mathrm{d}x = x - \frac{7}{2}\,\mathrm{arctg}\left(\frac{x}{2}\right) + c.$

(26) $\int \frac{3x-2}{x^2+9}\,\mathrm{d}x = \frac{3}{2}\ln\left(x^2+9\right) - \frac{2}{3}\,\mathrm{arctg}\left(\frac{x}{3}\right) + c.$

(27) $\int \frac{1}{2x+3}\,\mathrm{d}x = \frac{1}{2}\ln(2x+3) + c.$

(28) $\int \frac{2x}{15-x^2}\,\mathrm{d}x = -\ln\left|15-x^2\right| + c.$

(29) $\int \frac{x-1}{x+3}\,\mathrm{d}x = x - 4\ln(x+3) + c.$

(30) $\int \frac{2x-1}{3x+1}\,\mathrm{d}x = \frac{2}{3}x - \frac{5}{9}\ln|3x+1| = \frac{1}{9}(6x - 5\ln|3x+1| + 2) + c.$