

Номер варианта	Функция	Ряд	Рабочий интервал x
0	$\frac{x}{9+x^2}$	$\frac{x}{9} - \frac{x^3}{9^2} + \dots + (-1)^n \frac{x^{2n+1}}{9^{n+1}}$	[-1; 1]
1	$\sin^2 x$	$\frac{2x^2}{2!} - \frac{2^3 x^4}{4!} + \dots + (-1)^{n-1} \frac{2^{2n-1} x^{2n}}{(2n)!}$	[0; 1]
2	$\ln(1+x-2x^2)$	$x - \frac{5}{2}x^2 + \dots + \frac{(-1)^{n+1} 2^n - 1}{n} x^n$	[-0,2; 0,3]
3	$\ln(2+x)$	$\ln 2 + \frac{x}{2} - \frac{x^2}{2^3} + \dots + (-1)^{n-1} \frac{x^n}{n 2^n}$	[-1; 1]
4	$\frac{3x-5}{x^2-4x+3}$	$-\left(1+\frac{2}{3}\right) - \left(1+\frac{2}{3^2}\right)x - \dots - \left(1+\frac{2}{3^{n+1}}\right)x^n$	[0; 0,5]
5	$\frac{1}{2x-5}$	$-\frac{1}{5} - \frac{2x}{5^2} - \frac{4x^2}{5^3} - \dots - \frac{(2x)^{n-1}}{5^n}$	[0; 2]
6	$2(\cos^2 x - 1)$	$-\frac{4x^2}{2} + \frac{16x^4}{24} + \dots + (-1)^n \frac{(2x)^{2n}}{(2n)!}$	[0; 0,5]
7	3^x	$1 + \frac{\ln 3}{1!}x + \frac{\ln^2 3}{2!}x^2 + \dots + \frac{\ln^n 3}{n!}x^n$	[0; 1]
8	$\left(\frac{x^2}{4} + \frac{x}{2} + 1\right)e^{\frac{x}{2}}$	$1 + 2\frac{x}{2} + \dots + \frac{n^2+1}{n!}\left(\frac{x}{2}\right)^n$	[0,1; 0,6]
9	$\left(1 - \frac{x^2}{2}\right)\cos x - \frac{x}{2}\sin x$	$1 - \frac{3}{2}x^2 + \dots + (-1)^n \frac{2n^2+1}{(2n)!}x^{2n}$	[0,1; 0,6]
10	$(1+2x^2)e^{x^2}$	$1 + 3x^2 + \dots + \frac{2n+1}{n!}x^{2n}$	[0; 1]
11	$(1+x)e^{-x}$	$1 - \frac{x^2}{2} + \frac{x^3}{3} + \dots + (-1)^{n-1} \frac{n-1}{n!}x^n$	[0; 1]
12	$\frac{1}{4-x^4}$	$\frac{1}{4} + \frac{x^4}{4^2} + \dots + \frac{x^{4n}}{4^{n+1}}$	[0; 1]
13	$\frac{1+x^2}{2}\operatorname{arctg} x - \frac{x}{2}$	$\frac{x^3}{3} - \frac{x^5}{15} + \dots + (-1)^{n+1} \frac{x^{2n+1}}{4n^2-1}$	[0,1; 0,6]