

Варианты индивидуальных заданий.

№	Уравнение	$[x_0; b]$	$y(x_0) = y_0$	h
1	2	3	4	5
1	$y' = \frac{(x+y)(1-xy)}{x+2y}$	$[0; 1]$	1	0,1
2	$y' = y^2 + \frac{y}{x}$	$[2; 3]$	4	0,1
3	$y' = x^2 + y^3$	$[0; 1]$	0	0,1
4	$y' = 1 + x + y^2$	$[0; 1]$	1	0,1
5	$y' = \frac{y-x}{y+x}$	$[0; 1]$	1	0,1
6	$y' = \frac{2xy-3}{x^2}$	$[-2; -1]$	$y(-1) = 1$	-0,1
7	$y' = \frac{y^2}{x^2} - \frac{y}{x}$	$[-1; -0,5]$	1	0,05
8	$y' = \frac{y+x^2 \cos x}{x}$	$\frac{\pi}{4}$	0	$\frac{\pi}{36}$
9	$y' = \frac{1+y \cos x}{\sin x}$	$\frac{\pi}{6}$	$y(\frac{\pi}{2}) = 0$	$-\frac{\pi}{18}$
10	$y' = \frac{y}{x} \ln \frac{y}{x}$	$[1; 2]$	e	0,1
11	$y' = \frac{y+5}{0,5x}$	$[1; 2]$	0	0,1
12	$y' = \frac{\tan x - y}{\cos^2 x}$	$[0; \frac{\pi}{3}]$	0	$\frac{\pi}{18}$
13	$y' = \frac{y}{x} + \sin \frac{y}{x}$	$[1; 2]$	$\frac{\pi}{2}$	0,1
14	$y' = \frac{y \sin x - 1}{\cos x}$	$[0; \frac{\pi}{3}]$	0	$\frac{\pi}{18}$

1	2	3	4	5
15	$y' = \frac{y}{x} \ln \frac{y}{x}$	$[1; 2]$	1	0,1
16	$y' = \frac{y^2 - 2xy - x^2}{y^2 + 2xy - x^2}$	$[1; 2]$	-1	0,1
17	$y' = \frac{1 + y^2}{1 + x^2}$	$[0; 0,5]$	1	0,05
18	$y' = \frac{y \ln y}{\sin x}$	$[\frac{\pi}{4}; \frac{\pi}{2}]$	$y(\frac{\pi}{2}) = e$	$-\frac{\pi}{20}$
19	$y' = x - y$	$[0; 1]$	1	0,1
20	$y' = xy$	$[0; 1]$	1	0,1
21	$y' = xy^2 + 1$	$[0; 1]$	0	0,1
22	$y' = x + y^2$	$[0; 1]$	$y(1) = 0$	-0,1
23	$y' = \frac{y+5}{2x}$	$[1; 2]$	6	0,1
24	$y' = \frac{y-1}{x}$	$[1; 2]$	2	0,1
25	$y' = x + y$	$[0; 1]$	1	0,1
26	$y' = x^2 - 2y$	$[0; 1]$	1	0,1
27	$y' = x^2 - xy$	$[0; 1]$	0,1	0,1
28	$y' = \frac{y}{x} \ln \frac{y}{x}$	$[2; 3]$	2	0,1
29	$y' = \frac{1 + y^2}{1 + x^2}$	$[2; 3]$	3	0,1
30	$y' = \frac{y+5}{0,5x}$	$[2; 3]$	-1	0,1