Практическая работа по теме «Дифференциальные уравнения»

1.1	$(1+y^2)\,dx + (1+x^2)dy = 0$
1.2	$\dfrac{dx}{\sqrt{1-x^2}} + \dfrac{dy}{\sqrt{1-y^2}} = 0$
1.3	$2x\sqrt{1-y^2}\,dx + y\,dy = 0$
1.4	$y' = e^{x-y}$
1.5	$y' = \dfrac{y-1}{x+1}$
1.6	$(1+y^2)dx - xy\,dy = 0$
1.7	$(1+y^2)dx + xy\,dy = 0$
1.8	$(xy^2+x)\,dy + (x^2y - y)dx = 0$
1.9	$y'\cdot\sin x - y\cos x = 0$
1.10	$y'\cdot\operatorname{tg} x = y$
1.11	$(1+y^2)\,dx = x\,dy$
1.12	$y'\cdot\sin x - y\cdot\cos x = 0$
1.13	$x\cdot\sqrt{1+y^2} + y\cdot y'\sqrt{1+x^2} = 0$
1.14	$x\cdot\sqrt{1-y^2}\,dx + y\sqrt{1-x^2}\,dy = 0$
1.15	$e^{-y}(1+y') = 1$
1.16	$y\ln y\,dx + x\,dy = 0$
1.17	$e^y(1+x^2)\,dy - 2x(1+e^y)dx = 0$
1.18	$y'\sin x = y\ln y$
1.19	$2x\sqrt{1-y^2} = y'(1+x^2)$
1.20	$y' = \dfrac{1+y^2}{1+x^2}$
1.21	$y' = x/y$
1.22	$\sin y\cdot\cos x\,dy = \cos y\cdot\sin x\,dx$
1.23	$y^2\cdot y' + x^2 = 1$

1.24	$y \cdot e^{2x}\, dx - (1 + e^{2x})\,dy = 0;$	
1.25	$y \cdot y' + x = 0$	
1.26	$2e^{x} \cdot tg\, y\, dx + (1 + e^{x})\sec^{2} y\, dy = 0;$	
1.27	$(x + 1)\, y' + xy = 0$	
1.28	$y' = \cos(x + y);$	
1.29	$y' \cdot \sqrt{1 - x^{2}} = 1 + y^{2}$	
1.30	$y' = \dfrac{1}{2x + y};$	

2.1	$y'' + 4y = 0$	$y'' - 10y' + 25y = 0$	$y'' + 3y' + 2y = 0$
2.2	$y'' - y' - 2y = 0$	$y'' + 9y = 0$	$y'' + 4y' + 4y = 0$
2.3	$y'' - 4y' = 0$	$y'' - 4y' + 13y = 0$	$y'' - 3y' + 2y = 0$
2.4	$y'' - 5y' + 6y = 0$	$y'' + 3y' = 0$	$y'' + 2y' + 5y = 0$
2.5	$y'' - 2y' + 10y = 0$	$y'' + y' - 2y = 0$	$y'' - 2y' = 0$
2.6	$y'' - 4y = 0$	$y'' + 2y' + 17y = 0$	$y'' - y' - 12y = 0$
2.7	$y'' + y' - 6y = 0$	$y'' - 4y' + 20y = 0$	$y'' - 4y' + 20y = 0$
2.8	$y'' - 49y = 0$	$y'' - 4y' + 5y = 0$	$y'' + 2y' - 3y = 0$
2.9	$y'' + 7y' = 0$	$y'' - 5y' + 4y = 0$	$y'' + 16y = 0$
2.10	$y'' - 6y' + 8y = 0$	$y'' + 4y' + 5y = 0$	$y'' + 5y' = 0$
2.11	$4y'' - 8y' + 3y = 0$	$y'' - 3y' = 0$	$y'' - 2y' + 10y = 0$
2.12	$y'' + 4y' + 20y = 0$	$y'' - 3y' - 10y = 0$	$y'' - 16y = 0$
2.13	$9y'' + 6y' + y = 0$	$y'' - 4y' - 21y = 0$	$y'' + y = 0$
2.14	$2y'' + 3y' + y = 0$	$y'' + 4y' + 8y = 0$	$y'' - 6y' + 9y = 0$
2.15	$y'' - 10y' + 21y = 0$	$y'' - 2y' + 2y = 0$	$y'' + 4y' = 0$
2.16	$y'' + 6y' = 0$	$y' + 10y' + 29y = 0$	$y'' - 8y' + 7y = 0$
2.17	$y'' + 25y = 0$	$y'' + 6y' + 9y = 0$	$y'' + 2y' + 2y = 0$
2.18	$y'' - 3y' = 0$	$y'' - 7y' - 8y = 0$	$y'' + 4y' + 13y = 0$
2.19	$y'' - 3y' - 4y = 0$	$y'' + 6y' + 13y = 0$	$y'' + 2y' = 0$
2.20	$y'' + 25y' = 0$	$y'' - 10y' + 16y = 0$	$y'' - 8y' + 16y = 0$
2.21	$y'' - 3y' - 18y = 0$	$y'' - 6y' = 0$	$y'' + 2y' + 5y = 0$
2.22	$y'' - 6y' + 13y = 0$	$y'' - 2y' - 15y = 0$	$y'' - 8y' = 0$
2.23	$y'' + 2y' + y = 0$	$y'' + 6y' + 25y = 0$	$y'' - 4y' = 0$
2.24	$y'' + 10y' = 0$	$y'' - 6y' + 8y = 0$	$4y'' + 4y' + y = 0$
2.25	$y'' + 5y = 0$	$9y'' - 6y' + y = 0$	$y'' + 6y' + 8y = 0$
2.26	$y'' + 6y' + 10y = 0$	$y'' - 4y' + 4y = 0$	$y'' - 5y' + 4y = 0$
2.27	$y'' - y = 0$	$4y'' + 8y' - 5y = 0$	$y'' - 6y' + 10y = 0$
2.28	$y'' + 8y' + 25y = 0$	$y'' + 9y' = 0$	$9y'' + 3y' - 2y = 0$
2.29	$6y'' + 7y' - 3y = 0$	$y'' + 16y = 0$	$4y'' - 4y' + y = 0$
2.30	$9y'' - 6y' + y = 0$	$y'' + 12y' + 37y = 0$	$y'' - 2y' = 0$