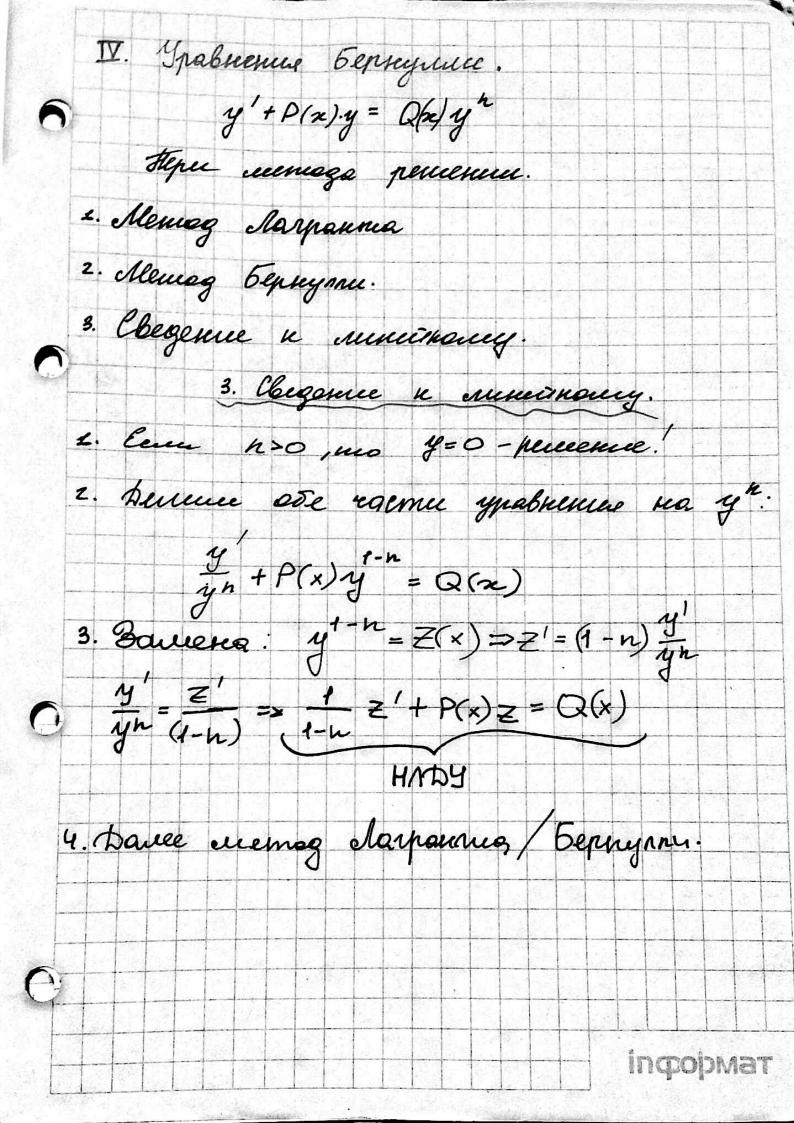
Dupppypureu. Dy. I'm hopagra. Thurs. (I) Dy c pozgensiousumus repensembures. (PM) y'=f(2).g(y) 11 *,1 (II) Ognopagnore DY. M(x, y) dx + N(x, y) dy = 0 (M(x,y) 4 N(x,y) - ognoro nopregra!) $uuu: y'=f(\frac{x}{y})$ III) ellerecture DY. y' + P(x)y = Q(x)a) Meneinene agnopagnone Dy (Q(x)=0) y' + P(x) y = 0 8) lunernae neognapognae \$4(0(x) ≠0) y + P(x)y = Q(x)TV) Grabreence Beprynne $P(x) \neq Q(x)$ $y' + P(x)y = Q(x)y^n$ іпформат

	Chocosor peniennes DY.	
G_{\perp}	100	emounts.
	y'=f(x)g(y)	
	$\frac{1}{dx} = f(x)g(xy)$	
	Уроцесс разделения перешення	x :
	$2. \int \frac{dy}{g(y)} = \int f(x) dx$	
	! проверити: y=yo:g(y)=0 решение?	
I	I Ognopognere DY.	
	$y' = f(\frac{x}{y})$	
	c. 3aucena: $\pm(x) = \frac{y(x)}{x} \Rightarrow y = \pm(x) \cdot x$	- ;y= + x +
0	Togeneabeure: t + x t'= f(t)	
		P17.
	$\int \frac{dt}{f(t)-t} = \int \frac{dx}{x}$	
		20.7
	nposepremo: $t = t_0$: $f(t) - t = 0$ - pencer. $x = 0$ - pencer.	
0	3. Сденаж обратную зашену.	
		іпформа:

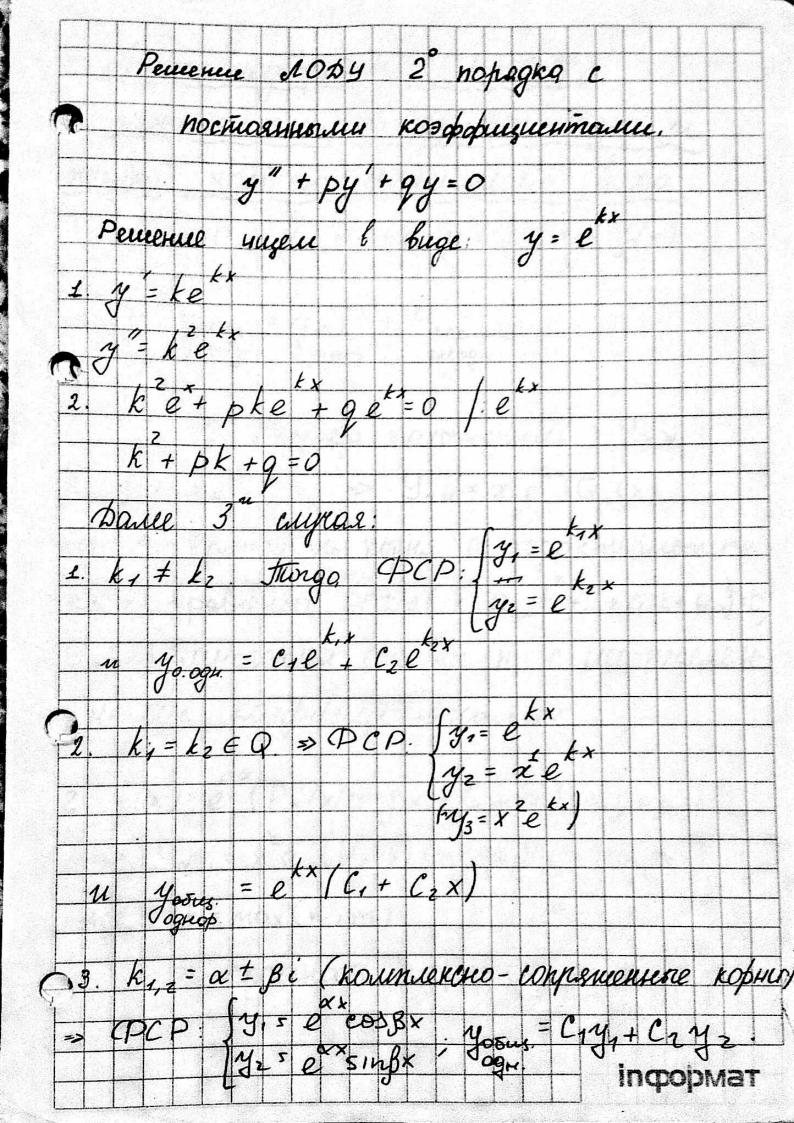
III Suncimore 24. a) ONDY: y + P(x) y=0 2. y'= -P(n)y - \$4 c P17. 8) HMBY: y'+P(2e)y=Q(2e) Dba unnega pulluls: 2. Menog bapuagus nourgbous roi nouvoennois. (Mening Sayranna) 2. Peucaem 0104, coombemembyrougel gannony 12. Peucaem peuchuce yogn = C.E. SAXXXXX 2. Pensence HADY unque b many me buge: $y_H = C(x)e^{-\int P(x)dx}$ (1) 3. Kaxequie yn a nogemaliaeux 6 24, накодим в(х) и подетавляем в (1). 0 inфobwat

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			x_{y}	· u	1. Vy	(2)=>	K	= 1	u'v	+ u	v'	(3)			
	2.	(2)	141	3) .	> 10	1	11-							ate of a	
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	3.	ſ.	H												4.1
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+			u'	V +	u ((v'+	Pa	(V)	= Q(u)	1				
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	V	+	Pa	1)2	=0		19 4	c F	20					100	
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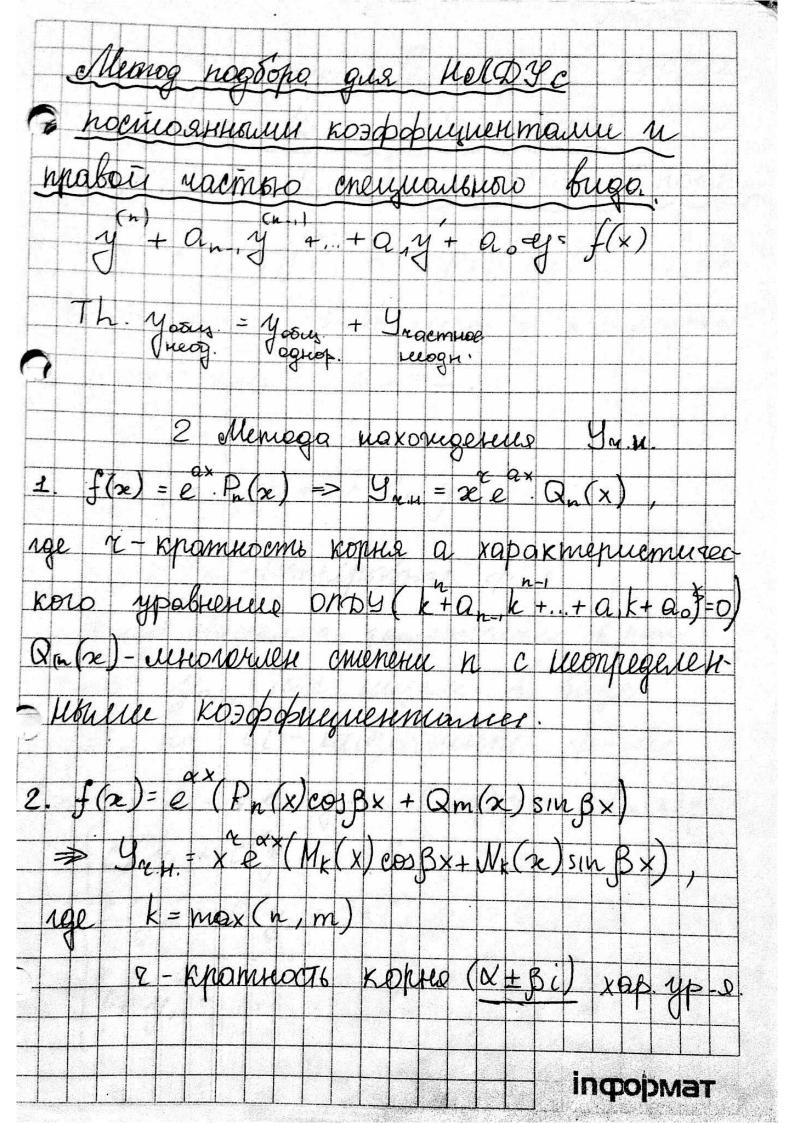


ДУ, допускающие пошними nopragua (F(x, y, y', y")=0) (I) by, elus ue eagepmanque y · F(2, y', y")=0 Норидок шания ур-ий монено понецить, egenal zameny: $y' = P(x) \Rightarrow y'' = P'(x)$. $\Rightarrow nopnegon yp - q nonumeerce un 1.5$ F'(x,p,p')=0. - by 1 nopegus
oninoeus. p. Famen francos Dy: y'= p(2) (p17) 1 24 else re cogepmanque 2. r.e. F'(y,y',y")=0 $y'' = P_{y}' \cdot y_{x}' = p'p$.

Marga: F'(y, P, p'p) = 0Equana 2 gagara co encenga. inфopwar



theopius + Peuxenue usemess nymesse chegenise K 24 2° noproka Teyemo z = x(t), y = y(t)] = f(t, 2, y) (1) (y=g(t,x,y) (2) 1) Duppepennyunyem (1) 6 uny ypastienis (2): $\frac{\partial f}{\partial x} = \frac{\partial f}{\partial x} + \frac{\partial f}{\partial y} = \frac{\partial g}{\partial t}$ $\ddot{x} = \frac{\partial f}{\partial t} + \frac{\partial f}{\partial x} \cdot f + \frac{\partial f}{\partial y} \cdot g \qquad (3)$ 2) 1/3 (1) bapanique $y = y(\pm, x, \dot{x})$ 4 nogemaliaeu b (3); maximu ograzau получаем ВУ 2° попядка no objection x(+) $x = x(t, C_1, C_2), gancere$ (1) managuere 4. y(t, C1, C2). inqopmat



Theopius + Виффурики вешинар. 21.05.13. Meriog Marpanna Chapitaique mouze noemoeunoù) que unoy no nopregra 19,14 (n) + P(x) y (n-1) + ... + Piy + Poy = f(x) Упобы использовать еметод Лаграния · rymens, mooth Q1=1. Jon 5 you + Jy 4 400, 5 Cyy, 4... + Cnyn · Pi(x)- renpeporbuas op-e Менья сванания заминачения в попу. uno you was wegen to buge 400. no li-ueux becuure &-uce om $x \cdot p \cdot y \cdot y \cdot x = C_1(x)y_1 + ... + C_n(x)y_n$ C1 41 + C2 42 + ... + Cn 4n = 0 C1 yx + C2 yz + ... + Ch yn = 0 C, y, + Chyn = f(x) іпформат

