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	Initial value Problems for ardinary
	Defferential Equations.
	Single Step (0x) pointwise solution:
	In solving a differential equation for approxim
	Solution we find rumerical values of 91,42,43.
	Corresponding to given values at independent variable
	values x, x2, x3 & that the ordered paix
_	(21,4,7 CM2,42) Satisfy a particular solution,
-	though approximately. A solution of this type
	is called a positivise solution.
	Single step methods con pointwise methods.
	In these methods we we information about
	the curve at one point and we do not iterate
	the solution. The method involves more evaluation
	of the function. The methods of taylor server,
	Euler 8 Runge-hutta belong to this Type.
	Multi Step methods con step by step methods
	These methods required fever availation of the
	function (past four values of the function) to estimate the solution at a point and sterations are performed
	Lill sufficient accuracy of achained. Estimation of
	error is possible and the methods are colled
	Predictor-corrector methods-



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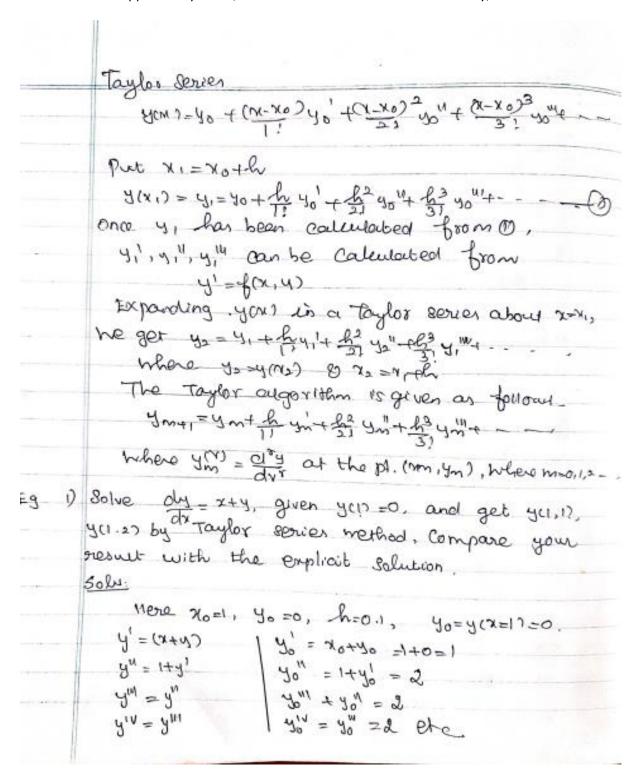
The methods of Milne & Adam Bash forth	
loelong to this type.	
Consider the 1st order differential equation	
dy = f(x,y), y(no) = yo - 0 dx The solution of the above initial value	
problem is obtained in two types.	
(1) power serves solution &	
(ii) pointwise solution.	
(i) power server solution:	
It y=y(x) is the solution of O, Than y(m)	
can be expanded in a taylor series about the	-1
point x=x0, as	_
= 1 4 m2 = 11 - 1 CN-x0)4 + (N-X0) -1 - = =	رەد
using 0, the derivatives yo', yo', yo'! at no, y	
can be found by means are security	
differentiation Dipremions 3 gives the latter)
Ob y for every value of x for which	
(2) converger.	
(1) pointwise solution of on then by	



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-	By Taylor Sovier, we have
	y, = 40 + hy 40 + h2 40+ h3 40" + h4 40"+
	: A'= A(1.1) = 0+ 0-1 (1)+ (0-1) 5(0)+ (0-1) 3/5)+
	= 0.1+0.01 +0.0033+0.00000833+0.00000016
	y (1.1) = 0.11053847.
	Now, take xo=1.1, h=0.1,
-	40 = 41 + 2 41 + 2 41 + 23 4 41 + 23 41 + 23 41 +
	We calculate y', y', y'', 2,=1.1, y,=0.11033841
	=1.21033847
	y" = 1+4! - 2.21033847.
-	y"= y" = y" = y" = = 2.21033847.
	y= =y(1.2) =0.11033847 + 0.1 (1.21083847) + 0.12 (2.210
	- (0.193 (2.2103384) +(0.19) (2.2103384)-
_	= 0.11032847 +0.21033847 +Q.21033847 +(0.05+0.0
	= 0.24280160
	The exact salw. of dy = x+y 1 y=-x-1+2ex-
-	y(1.2)=-1.2-1+2e ^{0.2} =0.21d8.



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Since we require
$$\frac{1}{1}$$
 (1) at $x=50$ We use?

Neuron formal formula to to get $\frac{1}{1}$ (1) at $x=51$

Let use require backward formula.

If the total formula formula.

If $\frac{1}{1}$ ($\frac{1}{1}$) $\frac{1}{1}$ ($\frac{1}{1}$)