1.2) applying Taylor's series to F(n + B, an)  $F(x + \beta_i \circ x) = F(x) + (\beta_i \circ x) = (x) + (x)$  $F'(n) \simeq \frac{1}{2} \sum_{i=1}^{N} \frac{1}{2} \left( \frac{\alpha_i F(n)}{\alpha(n)} + \frac{1}{2} \frac{1}{2} \frac{1}{2} \right)$ since we are only interested in since we are only interested in f(n)
setting it mp as a system of equations in matrix 以, X2 - X数 - NP - ON - ON こ  $\alpha$ ,  $\beta$   $\alpha$   $\alpha$   $\alpha$ ,  $\beta$   $\alpha$ ,  $\beta$ ,  $\beta$   $\alpha$ ,  $\alpha$ ,  $\beta$   $\alpha$ 0 Each when corresponds to a value of i ite 2nd row is the first derivative, and now is the 3rd cta

No:	

Subj	ect:	 	 	 				

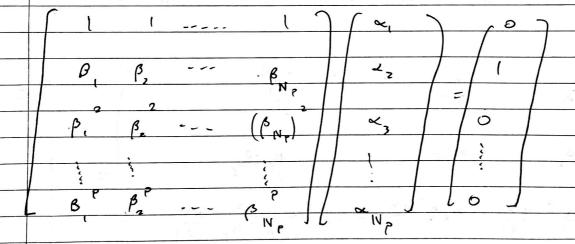
the	metrin	con be	simplif	ed	further,	Sinze	در سه
					, for thermore		
					First derive		

Then, we are left with only or and or values within the matrix. which can be split in the form 61 An = 6.

A s the motion of all B t volves

a is the alpha values

b is the vector on the right hand side.



using the code up.linaly-solve (A, 6) will give the

we find the squere motion 2 with p+1 rows

and No columns. => No = p+1

when No is the min # of points required to find an

approximation which is p'th order recorde.