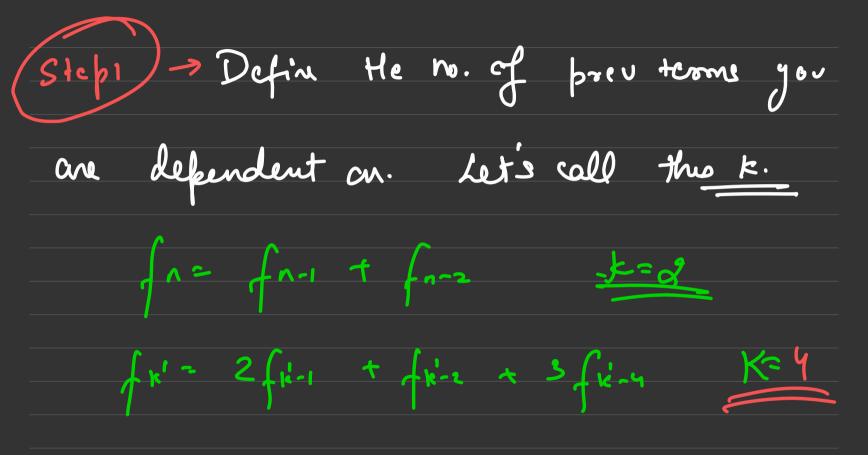
Fibonocci Numbers Crum a no. N, colc the oth fibonoci. 5 # Matrix Exponentialia Lo Linear Recorrence -> 9+ is a func¹ in which each term of the sep is a linear combination of prev terus. fn = fn-1 + fr-2

fk = afk-1 + bfk-2 + Cfk-s



Step 2 — find the first K terms of the Seq then shore them in a column. matrix fn=fn-1 + fn-2

une transformation

Tranformation Martin of F.6. $\begin{bmatrix} 0 & 1 \\ 1 & 1 \end{bmatrix} \times \begin{bmatrix} f_{i-1} \\ f_{i} \end{bmatrix} = \begin{bmatrix} f_{i+1} \\ f_{i+1} \end{bmatrix}$ p_{new} $f_n = T \times f_{n-1} = T \left(T f_{n-2} \right) = T \left(T \left(T f_{n-2} \right) \right)$ $\int_{1}^{1} \int_{1}^{1} \int_{1$

KxK K×1

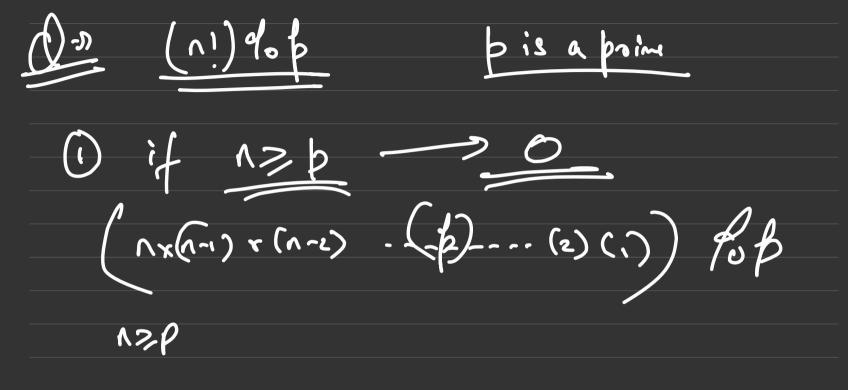
$$\begin{bmatrix}
0 & 1 & 0 & 0 & 0 \\
0 & 0 & 0 & 0 & 0
\end{bmatrix}$$

$$\begin{bmatrix}
f_{i-1} \\
f_{i-2} \\
f_{i-1} \\
f_{i-$$

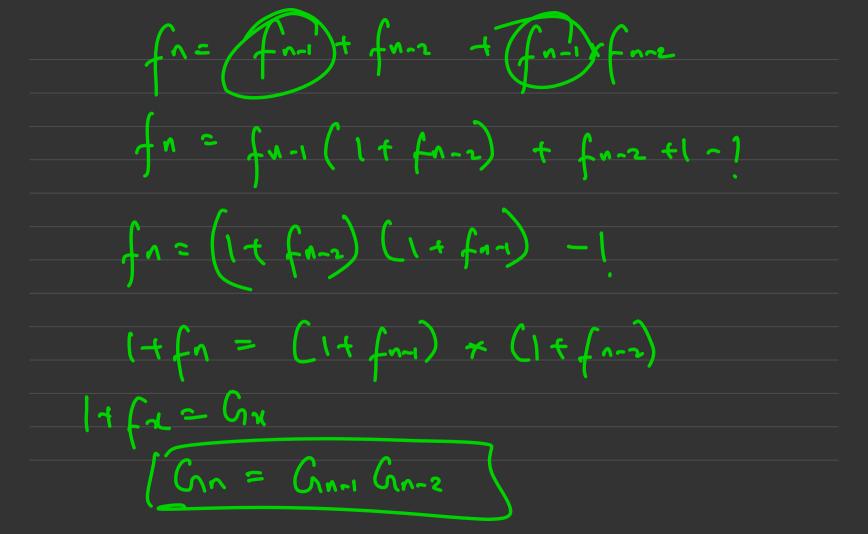
Willson theorem

if p is a prine number, then (p-1) 6 90p =

what phearem willson the state.



(f-1) | do b = -1 as b-1 $(1 \times 2 + 3 - - - - (n) - - - (p-2) (p-1))$ (p-2) (p-1)) (p-2) (p-1) (p-2) (p-1)



Cho = 14 fo = a

Ch =
$$\frac{b}{ab}$$

Ch = ab

Ch = ab^2

Ch = a^2b^2

Ch = a^3b^2

Ch = a^3b^8

Ch = a^3b^8

Ch = a^3b^8