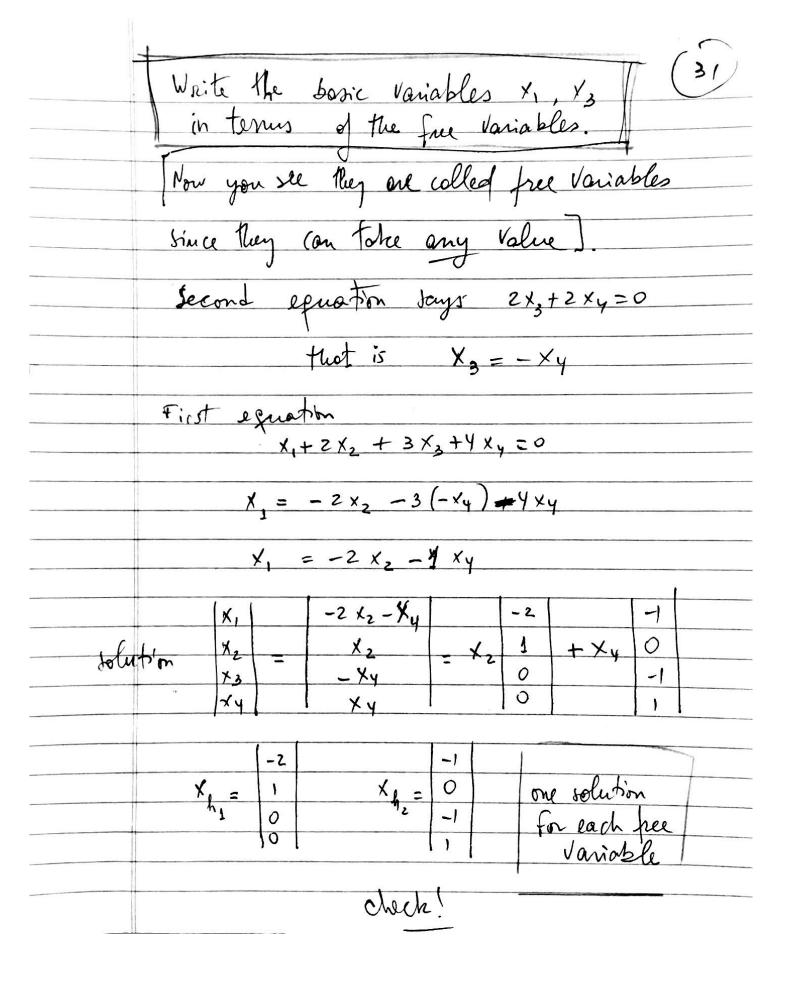
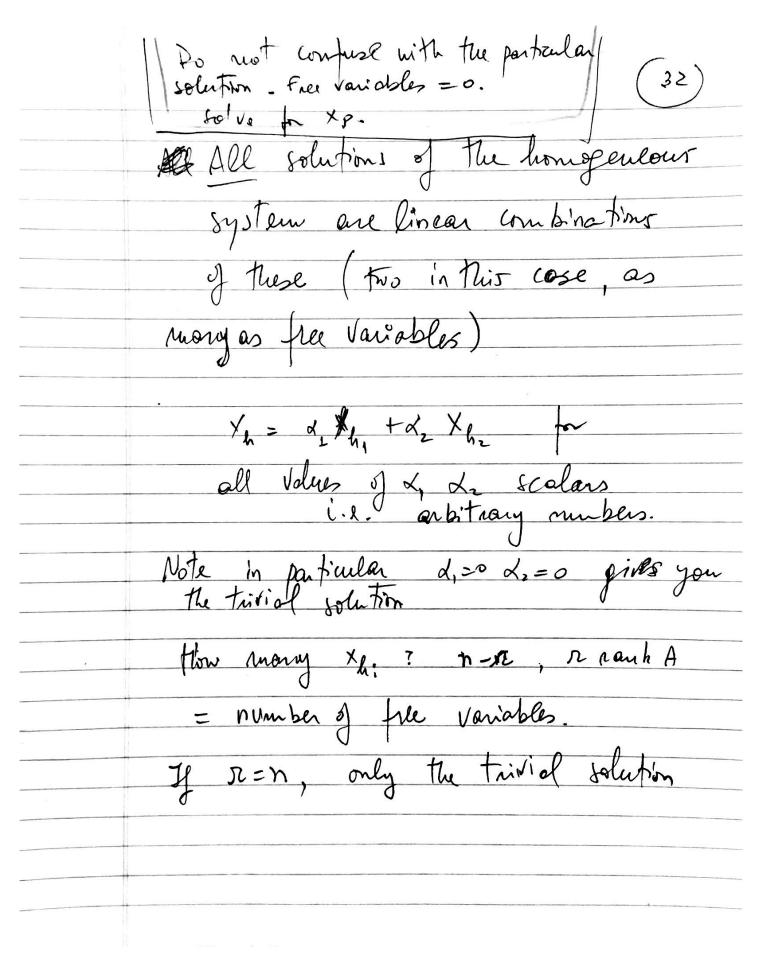
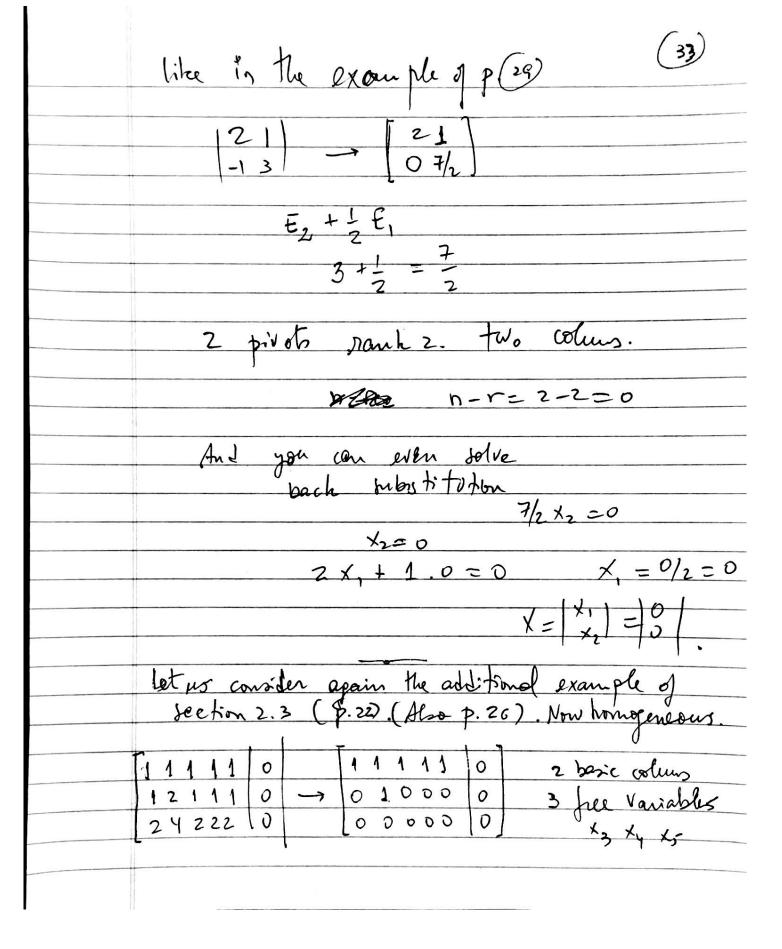
	Repeat. Ax=0 cannot hove no solutions (x=0 olways a solution)
	Solutions (X=0 olways a Solution)
	ll Ax = 0 has intritely many solutions we want
	If $Ax = 0$ has infinitely many solutions, we want to find them all.
	Hours It the Colon Con Volent
	How? Vec the Echelon form (equivalent system - same solutions).
	0 1 - 1 Dett
	take the 3x4 example in p. 20 (section 2.3 Notes)
	Notes)
4	
	$ \begin{bmatrix} 1 & 2 & 3 & 4 \\ 2 & 4 & 8 & 10 \\ 3 & 6 & 11 & 14 \end{bmatrix} $ $ \begin{array}{c} \chi_1 & = 0 \\ \chi_2 & = 0 \\ \chi_4 & = 0 \end{array} $
	2 4 8 10 X2 = 0
	L3 6 11 14 J /3 LUJ
	×4
	We sheady did [A/b] -> [E/c]
	and here [Alo] - [E/o]
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	$ \begin{bmatrix} 1 & 2 & 34 & 0 \\ 0 & 0 & 22 & 0 \\ 0 & 0 & 00 & 0 \end{bmatrix} \begin{cases} \chi_1 + 2\chi_2 + 3\chi_3 + 4\chi_4 = 0 \\ 2\chi_2 + 2\chi_4 = 0 \end{cases} $
7	
Carlo Maria Carlo	







Second equation $X_2 = 0$ First equation $\frac{1}{1} + \frac{1}{1} + \frac{1}$ = 43 1 + 44 0 + 45 0 3 free variables All solutions of Ax=0 one of the foram Xh= d, Xh, +dz Xhz td, th, th, d, X2d, CIR In general. If there are p=n-r free variables The form Xh = d, Xh + d, Xh + - - + xh xh x d, de do . - do EIR (red numbers) that is allinear combinations of the Xh: