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	AI 61003 Lineau Algebra for AI & HL				
	Assignment 01 - Problem 06				
	Consider AE RMXn Left inverse of				
	A is matrix X & Ruxin such that				
	Consider AE R <sup>mxn</sup> . Left inverse of A is matrix XE R <sup>nxm</sup> such that XA = In, where In E R <sup>nxn</sup> is an identity matrix.				
	identity matrix.				
(a)	$A^{T} = \begin{bmatrix} 1 & 0 & 0 & 1 & 0 \end{bmatrix}$				
	Let A be left invertible with left inverse X \in IR IX5				
	inverse X é RIX5				
	Let X = Labcde				
	By definition.				
	XA = LIJE D LIS EN				
	=) 1. a + 0. b + 0. c + 1. d + 0. e = 1				
	=) a + d = 1 (possible)				
	: A is left invertible (choose a, b, c, d, e) All left inverses of A can be represented as [a, b, c, l-a, e]				
	All left inverses of A can be				
	représented as [a', b, c,1-a, e]				
	where a, b c e e IR.				
	: Left Inv (A) = & X   X & IR 1x5 and				
	(characterizat of all left inverses of A)				
112					
(6)	A = 2 0				
	0 -2				
	Let A be left invertible with left inverse X & R <sup>2×3</sup>				
	Let X = a b c				
	Ld e f J				
	일은 이들에 하일 한다. 전한 계속 회에 연락했다면 그런 얼마를 가지는 얼마면서 다 먹으면 했다. 이번째까지 그				

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	By definit <sup>h</sup>
	$XA = \begin{bmatrix} 1 & 0 \end{bmatrix}$
	of the late of the second of t
	[a b c ] [2 0 ] = [1 0]
	[def] 0 -2 [0]
	L3 3
	$\begin{bmatrix} 2a+3c & 3c-2b \\ -2d+3f & 3f-2e \\ \end{bmatrix}$
	$\lfloor 2d+3f \rfloor 3f-2e \rfloor \lfloor o \rfloor$
=)	$2\alpha + 3c = 3f - 2e = 1$
	3c - 2b = 2d + 3f = 0
=)	
	b = 3c/2 $a = (1-3c)/2$ (possible) d = -3+/2 $e = (3+-1)/2$ (possible)
	d = -3f/2, $e = (3f-1)/2$ (possible)
3	: A is invertible (choose a,b, c,d,e,f with
	All left inverses of A can be chara-
.5	- et ouze a as (1-3c)/2 3c/2 c
	[-3f/2 (3f-1)/2 f]
1	: Left Inv (A) = [-(3x-1)/2 3x/2 x]
	(A - 20 12 DE 12 12 12 12 12 12 12 12 12 12 12 12 12
	X B G R Z
	(characterizate of all left inverses of A)
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