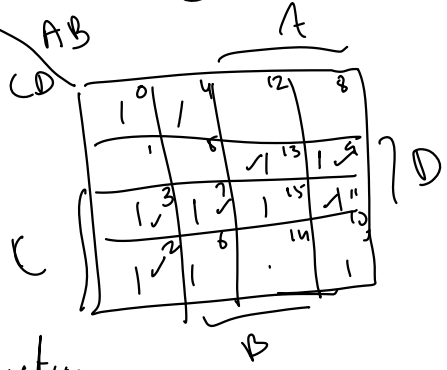
Problem 7 PI table and PI table reduction

PI are implicants that cannot (product terms) be combined with other implicants to form an implicant with fewer literals

$$f = A\bar{B}\bar{C} + AB\bar{C}$$
$$= AB(C + \bar{C}) = AB$$



PI reduction

① EPI :

② Row reduction : finding and removing dominating rows

③ Col reduction : finding and removing dominated cols

$$f = \bar{B}C + CD + AD$$

7 Packages : all have to be delivered
(minterms)

5 Carts
PI

PI table

Carts → / Packages ↓	C1	C2	C3	C4	C5
P1	X		X		X
P2		X	X		
P3	X			X	X
P4	X		X		
P5		X			
P6		X	X	X	
P7			X	X	

Petrick

All packages are covered yf.

$= (C_1 + C_3)(C_2 + C_3 + C_5)$

. - - .

$= C_1C_2C_5 + \ldots\ldots$