DATE PAGE

14 January, 2021

Continuing previous enample

Z= (ni +3ny)-2ng+21 Tinc. finc optimum the some some some of the some of the some some of the some n1, n4, n5 >/0 I whenever m, ny khornges Value, to increases Z, is no optimum using

So, now my is the basic variable At one time, we can conly replace one basic variable

there

i. there is a possibility of improvement in Objective Su

Now, first nz & nz were basic variables Now, we need to replace no with one of them.

n1-0, ny =0

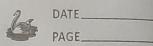
 $n_3 + 2n_5 = 6$ $2 \ni n_3 = 6 - 2n_5 \geqslant 0$ $n_2 + 3n_5 = 15$ $3 - n_2 = 15 - 3n_5 \geqslant 0$

 $n_5 \leq 6 = 3 \rightarrow strict$

m < 13 = 5

Set $n_5 = 3$ $n_3 = 0$ 8 $n_2 = 6 > 0$ i. no & nz will be our nent banic ng will be non-basic now. The fourth way as New soln is (0,6,0,0,3) -> Frasible soln 472 = 040 + 6 + 3(3)(Z = 15) Nûn. $Z = -4n_1 + n_2 + n_3 + 7n_4 + 3n_5$ $6 = -6n_1 + n_3 - 2n_4 + 2n_5$ $9 = 3n_1 + n_2 - n_3 + 8n_4 + n_5$ Pivoting

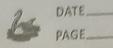
Step-II - 24 8 IN Smoothed - 60- 500 $-n_1 + n_3 + n_4 = +15f_2$ $-3n_1 + 1_2 n_3 - n_4 + n_5 = 13$ 6n1 +n2. \ = 3n3 +9ny = 6 nz, ns 3 Basic (Min. Z=15) So Solv is (0,6,0,0,3) with Z=151 Now check whether Z can be mi nimited more ar need,



	PAGE
ni -> Basic Variable	8 100 18
Replace no on no by no	
12320, ny 201	
-6m +2n5=6 > +3r	
6n, +n2 = 6)
102 100 (5, 3) may (10, 0) m	sulting and
(3) 5 + 3 + 3 + 3 n)	7,0
72=6-6n/47/0	
Stoict Co	nditi ay
As no to	100
	250
M-15WEHRELLE	1 and 1
MANUAL MA	Caracion
=> m < 1	
Nav, substitution in	AMADONE
m2=03 Non-basic 2 n1 & n	5 -> New Busic
ms=6	Variably
San (1,0,0,0,6)	1115-
Nin Z=14	145 - 3211
Three de propre de .	get mid
Plusting	
1/6 m2 + 34 m3 + 5/2 my = -	1412
1n2-1n3.+7, ny +m5 = 6	5
2 4 2	
ni+/n2 - 1 n3 + 3 ny - = 1	dus tride con
6: 4 2	1000
(1,0,0,0,6) -> Sal" (Bas	ic (Panible sol")
7214	
I. The second of and	
Optimum Value.	

Step-4 MARIE CONTRACTION OF THE STATE OF THE Z = 1n2 +3 n3 +5 ny +14 Coun't be further decreased Algorithm Stop. 1 Min 7 - 1020 000 - 110 0000 Min Z = we see - ue sign will improve Z Simplex Method

1) Standon Form 2) Comonical form (Fearible Basic solm) 3) Move from one " " to other to get Optimum sol for Z LP is in canonical from. Let Assume m = no . of constraints n = 11 11 Variables & mostly n>m let us assume (n, n2, -- nm >0) -> B.U. Cm11 nm11 + --- + (nnn = 70+2) On man man n, 23 0 nm + amm+1 nm-1 + --0



Rule: for IP in (), y cj >0,

j=m11--n then basic solutions are

(b1, b2 - - - bm, 0, 0; - - - 0)

Stop the algorithm y Rule is satisfied If one of cito circo (Strict Condition), ne shall enter to busic Variable n + airne= 61) Abid Condition n2 + a2k n 2 = b2 > h1- b-app >10 orber (3doir sorr) (in him will in to get Optimum nm + amene= bm () X X I'M (andrical, term Brunsterry B. Out & My & grande ME II IN UNICIPELL & prooff 21 >m (BM (ME) STATES (BM) ME) and to properly the - + Heart mark (d) are up)