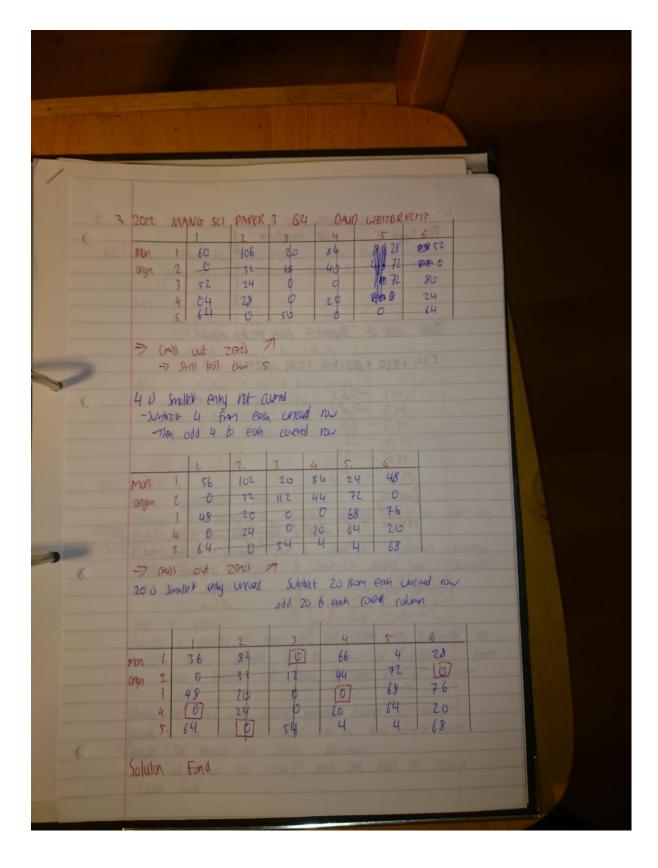
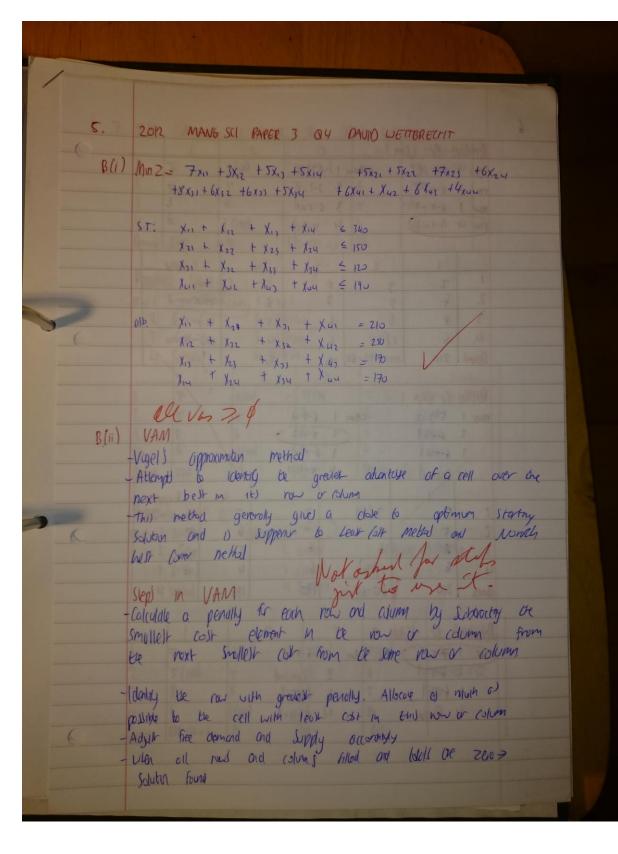
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Sidno	OAR MARK ON THE TOTAL
Enoth.	2012 MANG SCI PAPER 3 Q4 DAVID WETSBRECHT
4/0)	Assignment Problem Destino
	Destino Destino
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	2 5.0 04 5.2 3.6 0.8
	3 6.3 10.8 10.6 8.8 10
	4 5.6 2.4 5.6 4.8 2.4
	5 5.5 68 12.0 10 5.2
	6 5.5 2.0 11.2 5.6 7.2
	200011005 11105
0 i.	Minimle: 5.5x, +1.6x, 2 +9.4x, 3 +5.2x, 4.68x, 5
1.	+ 5.0x21 + 0.4x21 + \$ 5.2 x23 + 36x24 + 0.8x23
	+ 6.3 X ₃₁ + 10.8 X ₃₂ + 10.6 X ₃ , + 8.8 X ₃₄ + 10 X ₃ ;
	+5.6 Xu + 2.4 Xu2 + 5.6 Xu3 + 4.8 Xu4 + 2.4 Xus
	+5.5 X51 + 6.8 X52 + 120 X53 + 10 X54 + 5.2 X 55
	+5+ ×61 + 20 ×62 + 11-2×13 + 5-6×64 + 7-2×65
	ST: X11 + X12 + X13 + X14 + X15
	$\chi_{21} + \chi_{22} + \chi_{23} + \chi_{24} + \chi_{25} \leq 1$
	$x_{21} + x_{32} + x_{33} + x_{34} + x_{35} \leq 1$
0	1/41 + X42 + X43 + X44 + X45 \(\)
	X57 + X52 + X53 + X54 + X55 \(\leq \)
	161 + 1/12 + 1/67 + 1/64 + 1/67 5 1
	761 /62 /60
	$x_{11} + x_{21} + x_{31} + x_{41} + x_{51} + x_{61} = 1$
	112 + X22 + X32 + X42 + X52 + X62 = 1
	$X_{13} + X_{23} + X_{31} + X_{43} + X_{53} + X_{63} = 1$
	XIM + X24 + X3M + X4M + X5M + X6M = 1 XIT + X25 + X35 + X4T + X55 + X85 = 1
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6	Oll Nan 50,13

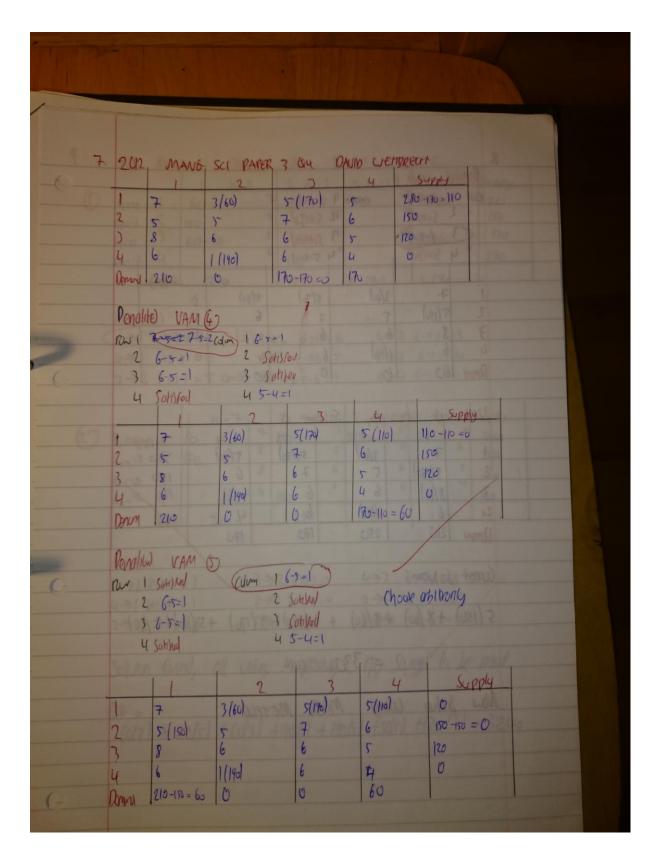
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	(argn) 2 536 568 624 616 616 560
	3 692 614 620 680 720 744
	4 608 632 534 664 680 632
	5. 640 576 606 616 584 664
A(in)	111111111111111111111111111111111111111
Mill Y	Hungaron Method
	Survivair Smothir value from each row first.
	2 3 4 5 6
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	-536 mm 2 0 32 88 80 80 24 -620 (mm) 3 72 44 (0) 6(2 100 124
	-576 1 64 0 39 40 8 88
	Subtract smallest vote from count with out a zer.
	2 3 4 5 6
	man 2 0 32 88 40 72 0
	Subhabid 40 from (4, 8 from (5, 74 from C4
	7 (nos) out zeros in a) little lies a) possila
	- need a minimum of 5 tires, only hare 3
	No 12 of the state
=	7.20 i) smallest code not cared by lie
	-> Subboil 20 from each uncared pow.
	> Then add 20 to early colod now



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	OF UT STILL	1				

9	2012 MANG SI PAPER 3, QY DAUM WETBRECHT
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	6 7 6 4
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	Cokulden
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	4-> 1 642-8 = 0 2->3 7-543=5 2->4 6-5+3=4
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	144
60	R = 10 1 1/2 7 1/2 3 1/2 5 57 5 21
(2)	M=0 1 60 100 110 3 50 340
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	May 210 250 170 170
	1,000 210 110 110 110
	Collection
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	4-71 42-7=1 2-73 7-5-2=4 2-74 6-5-2=3
	2->25-2+3=4 3->) 65-00 4->4 4 4-2-5=1
	The second secon
	Solution found, all values positive, no surger to be much
	1 1/1 1/0 000
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	6017) + 15015) +60(3) +190(1) + 170(5) +50(5) +120(5) = 3240

		The state of the s
	13	2012 10111054 001100
	1.	2012 MANGSCI PAPERS Q4 CURRETRUM
		Assignment prior deman monutary
		. 1 2 3 4 5 0 DUMMY.
		chan 1 5.50 1.60 9.40 5.20 6.30 0.
		Source 2 1005.0 0.4 5.2 3.6 0.8 0
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		4 5.60 2.4 5.6 48 2.4 0
		5 5.50 68 120 10 5.2
		6 5.00 2.0 11.2 5.6 7.2
		16 6 Super count
7		Marinte S. 8, + 1.6/2 + 9.4/5 + 5.2/4 + 68/5 + 010
		+ 5.00 + 0.422 +5.203 + 3.624 +0825 + O20
		+ 6.33 + 10.837 + 10.633 + 8.874 + 10.03 + + Usp
		+ 5.641 + 2442 + 5.643 + 4.844 + 2.445 + 04p
		+ 5.5 1 67 52 + 12.053 + 1054 +5255 + 050
		+ 5.56 + 2.062 + 11.263 + 5.660 +7.26= + 060
		Subjet to: X1 + X12 + X13 + X14 + X15 + X10 = 1
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		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
		domand Xu1 + Xu2 + Xu3 + Xu4 + Xu1 + Xu0 = 1 0
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		X61 + X62 + X63 + X60 + X65 + X60 = 1
	0	Demon Y11 + X21 + X31 + Aun + X51 + X62 = 1 31 31 31
		MUN Xp + X22 + X52 + X42 + X52 + XA = 1
		he x13 + X25 + X33 + X43 + X03 + X02 = 1 8
	5	uppled x44 + x24 + x34 + x44 + x54 + x03 = 18
		Xrs + x2r + Y3s + X41 + X5r + Xpy = 1
		x_{rs} + x_{2r} + y_{3s} + y_{4s} + y_{5s} + y_{0u} = 1 x_{an} + y_{2b} + y_{3b} + y_{4c} + y_{5s} + y_{ps} = 1
	6	All X E & 0,13 only

3 2012 MANGESTI PAPER 3 QH CORRECTION.

2										
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	mun.	2	536	9.4	50	624	616	616	560	536
		3	692		664	620	680	720	744	620
		4	608	v.	632	584	664	680	632	584
		5	640	33	576	606	616	584	664	576
		D	0	27	0	0	0	0	Q	0

in Hunguan method Subtract smalled value from each raw.

Then Subhalt Smalled value from column containing to zeros.

		Sara	e Csuppled		11371	SALE T	103-7	
		1	12	3	4	5	6	
Delhun	1	89	126	0	146	56	96	
mon	2	6	34	88	80	80	24	
1110	3	72	441	0	60	100	124	
	4	241	48	0	80	96	48	
	5	641	0	30	40	8	- 88	ı
	D	-6	0	0		-0	- 6	1
(ms)	aut	ZENO	15 0	is test	moe	os poss	ibly	

-Not 0 Solution

- Four line wied.
- Subtract smallest value which is unloved by a line from each row & 1

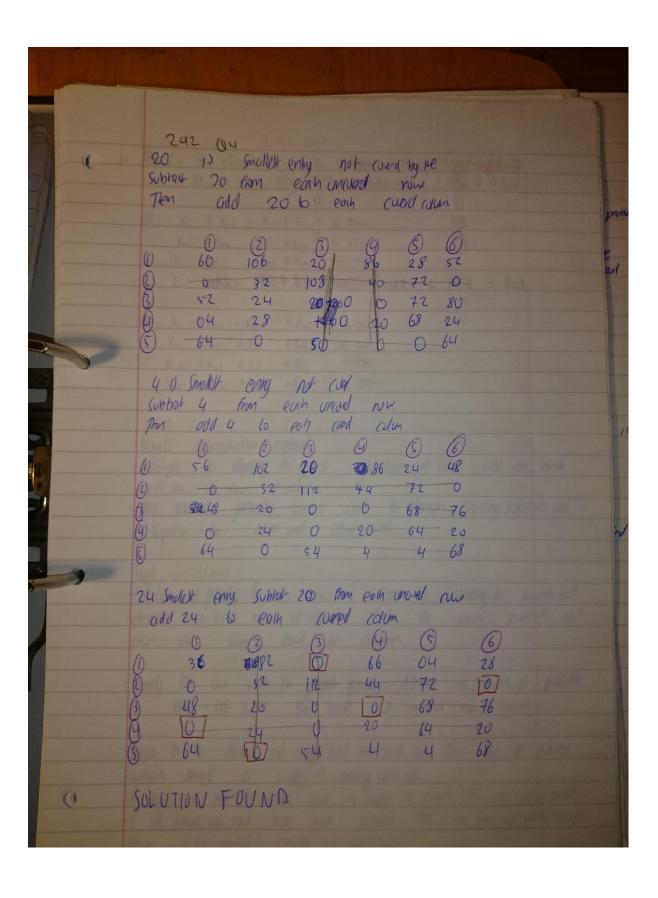
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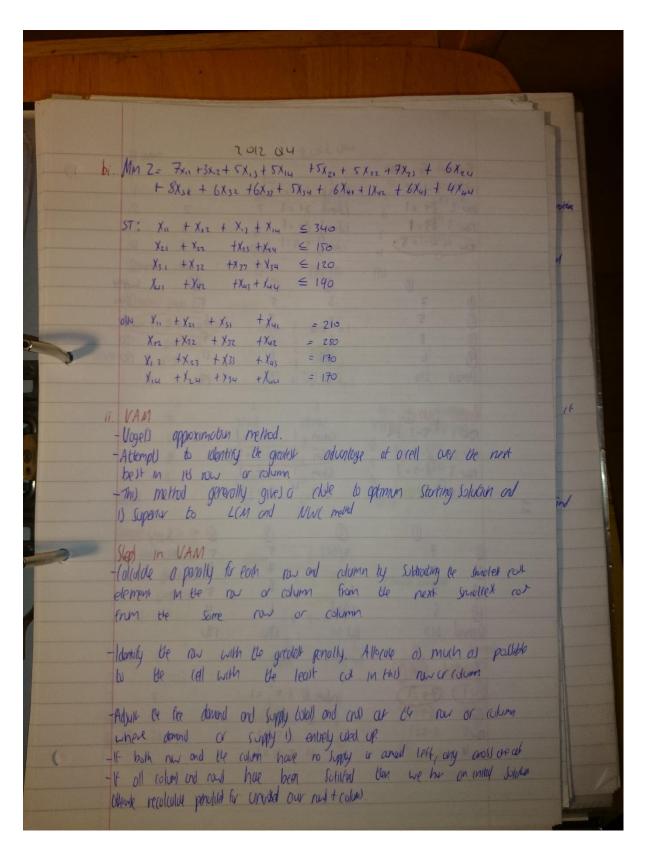
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REAL PROPERTY.	THE REPORT OF THE PERSON OF TH	
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-(-	Destruct Assignment Problem	
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	5: 55 68 120 10 5.2	
	61 55 20 112 56 72	
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A STATE OF THE PARTY OF THE PAR		
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9	5.5X11 + 1.6 X12 + 94 X13 +5.2 X14 + 68X15 +5.0X21 + 0.4 X22 + 5.2 X23 + 3.6 X24	
219	+ 0.8 Xzs +63/31 + 108/32 + 106 X3> + 8.8 x24 + 10x35	
0)7	+ 5-6×41 + 2-4×42 + 5-6×47 + 4-8×44 + 2-4×45	
744	+5.5×51 +68×52 +17.0×53 +10×54 +5.2×55 +5.5×60 +7.0×62 +11.2×63 +5.6×64 +7.2×65	
2.83	+3.7 X6 +7.0 X62 +11.5 X63 +3.5 X64 7 10.65	W
200	ST: Supy 0 55x1 + 1.6 X12 + 94X13 +5.2 X14 + 6.8 X15 = \$ 25.20	
-	0 50x21 +04x22 +52x23 +36x24 +08x25 = \$ 28.0	
	A Liv. + Daxon + 106x2 + Saxon + 10x5 = \$ 20.4	
	66x + 24x + 56x + 49x + 24x - 2 28.4	
	6) 55 x + 68 x + 10 x + 10 x + 52 x = 3 240	
	6) 5.5 ×6 + 68 ×52 + 11.2 ×63 + 10 ×54 + 5.2 ×55 = 3 240 6) 5.5 ×6 + 2.0 ×62 + 11.2 ×63 + 5.6 ×64 + 72 ×65 = 3 260	
(p35)		
	55. X1 * X2 + X1 + X14 + X15 = 1	
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	X61 + X62 + X63 + X64 + X65 = 1	
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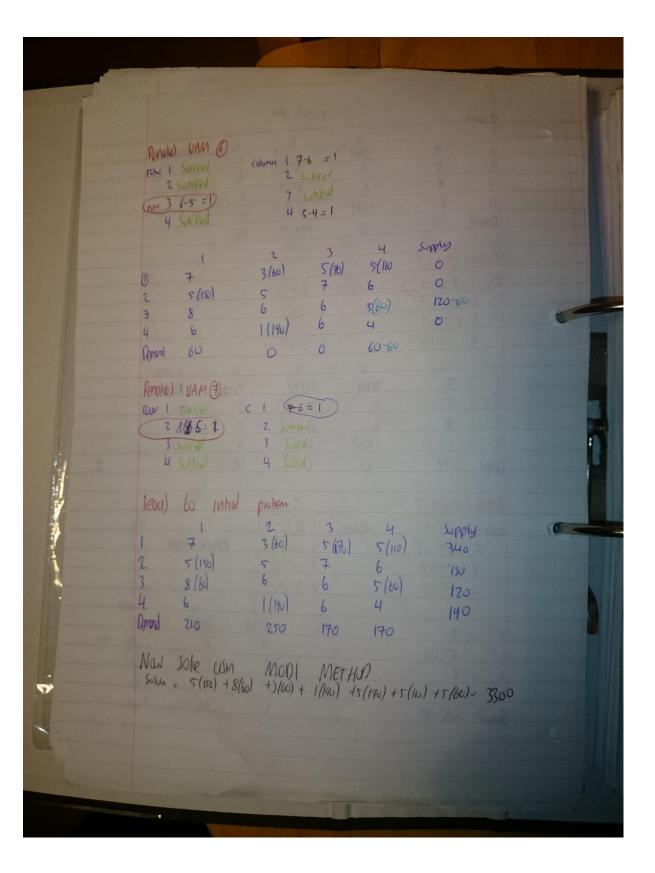


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O.	$k_1 = 0$ $k_1 = 98$ $k_1 = 0$ 60 $k_2 = -3$ 2 150 $k_3 = 0$ 3 $60 - 60$ $k_4 = -2$ 4 210	1	3 170	5 110-60 7 6 60+60	1	Notin
0	$1 \Rightarrow 17 - 8 = -1 \Rightarrow 26 - 3$ $4 \Rightarrow 16 + 2 - 8 = 0 \Rightarrow 2 \Rightarrow 3 \Rightarrow 36 - 8$ $2 \Rightarrow 25 + 3 - 3 = 5 \Rightarrow 3 \Rightarrow 36 - 8$ $k_1 = 7$ $k_2 = -2 \Rightarrow 2 \Rightarrow 3 \Rightarrow 36 \Rightarrow 8$ $k_3 = 0 \Rightarrow 3 \Rightarrow 36 \Rightarrow 8$ $k_4 = -2 \Rightarrow 2 \Rightarrow 3 \Rightarrow 36 \Rightarrow 36$ $k_4 = -2 \Rightarrow 2 \Rightarrow 3 \Rightarrow 36 \Rightarrow 36$	60 60 60 60 60 60 60 60	4 6 -5+3 = 4 4 -2 -5 63 = 5 170 7	4 = 1	Supply 740 150 120 190	(6
	$3 \Rightarrow 18-0-7 = 1$ $4 \Rightarrow 16+2-7 = 1$ $2 \Rightarrow 25-2+3 = 4$ Solution fund 60(7) + 150(5) + 60(6) + 60(6)	3→2 6-0-3: 2→3 7-5-2 3→3 6-5-0	<u>-</u> (1	4→36 2→46- 4→44	2-2 = 1	iv/