

SALESMEN ASSIGNMENT Problem

Gross Sales g_{ij}				Satisfaction Factors s_{ij}				Satisfaction	Assignments x_{ij}				Salesmen to 1 Branch			
40	16	38	38	5	8	1	3	0	0	0	0	0	0			
91	92	39	52	9	3	7	1	0	0	0	0	0	0			
3	4	5	7	0	4	2	9	0	0	0	0	0	0			
12	18	40	20	4	2	6	0	0	0	0	0	0	0			
3	6	8	0	7	6	2	2	0	0	0	0	0	0			
18	0	12	3	2	7	1	5	0	0	0	0	0	0			
25	8	15	4	5	4	7	8	0	0	0	0	0	0			
49	51	40	18	9	9	9	2	0	0	0	0	0	0			
0	10	20	3	5	8	3	5	0	0	0	0	0	0			
8	6	20	4	1	1	5	1	0	0	0	0	0	0			
42	8	8	6	6	4	7	8	0	0	0	0	0	0			
16	20	12	30	9	2	2	5	0	0	0	0	0	0			
19	47	40	18	0	8	3	6	0	0	0	0	0	0			
8	9	6	15	3	0	2	2	0	0	0	0	0	0			
21	22	8	38	1	3	1	0	0	0	0	0	0	0			
6	4	0	10	4	5	0	4	0	0	0	0	0	0			
17	9	16	5	6	1	5	1	0	0	0	0	0	0			
28	67	21	8	7	7	8	8	0	0	0	0	0	0			
Total Satisfac								0	Salesmen per Branch				0	0	0	0
Gross Sales								0	Gross Sales				0	0	0	0
Total Gross Sales								0	Total Gross Sales				0			
Total Satisfaction + Total Gros								0								

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BIN PACKING Problem (Linear Formulation)

Items Size (Si)

0.1	0	0	0	0	0	0	0
0.35	0	0	0	0	0	0	0
0.5	0	0	0	0	0	0	0
0.4	0	0	0	0	0	0	0
0.6	0	0	0	0	0	0	0
0.4	0	0	0	0	0	0	0
0.3	0	0	0	0	0	0	0
0.25	0	0	0	0	0	0	0
0.5	0	0	0	0	0	0	0
0.15	0	0	0	0	0	0	0
0.1	0	0	0	0	0	0	0
0.2	0	0	0	0	0	0	0
3.85							

Bins Used (Yi)

0	0	0	0	0	0	0
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Capacity (B)

1	1	1	1	1	1
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Used Capacity (SiXij)

0.00	0.00	0.00	0.00	0.00	0.00
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Used Capacities (YiB)

0	0	0	0	0	0
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Total Used

0

Assigned

- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1

BIN PACKING Problem (Nonlinear Formulation)

Items Size (Si)

0.1	0	0	0	0	0	0	0
0.35	0	0	0	0	0	0	0
0.5	0	0	0	0	0	0	0
0.4	0	0	0	0	0	0	0
0.6	0	0	0	0	0	0	0
0.4	0	0	0	0	0	0	0
0.3	0	0	0	0	0	0	0
0.25	0	0	0	0	0	0	0
0.5	0	0	0	0	0	0	0
0.15	0	0	0	0	0	0	0
0.1	0	0	0	0	0	0	0
0.2	0	0	0	0	0	0	0
3.85							

Capacity (B)

Used Capacity (SiXij)	1	1	1	1	1	1
Used Bins	0.00	0.00	0.00	0.00	0.00	0.00
Total Used	0	0	0	0	0	0

Assigned

- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1
- 1

Example 1 for Branch and Bound

	X1	X2	X3	X4			
	0	0	0	0			
Z	9	5	6	4	0		
C1	6	3	5	2	0	≤	10
C2	0	0	1	1	0	≤	1
C3	-1	0	1	0	0	≤	0
C4	0	-1	0	1	0	≤	0