

# Nemhauser & Wolsey

Variable -->	X1	X2	Direction	R. H. S.
Maximize	7	2		
C1	-1	2	<=	4
C2	5	1	<=	20
C3	-2	-2	<=	-7
LowerBound	0	0		
UpperBound	M	M		
VariableType	Continuous	Continuous		

# Combined Report for Nemhauser & Wolsey

	23:03:46		Saturday	June	02	2012		
	Decision Variable	Solution Value	Unit Cost or Profit c(j)	Total or Contribution	Reduced Cost	Basis Status	Allowable Min. c(j)	Allowable Max. c(j)
1	X1	3,2727	7,0000	22,9091	0	basic	-1,0000	10,0000
2	X2	3,6364	2,0000	7,2727	0	basic	1,4000	M
	Objective Function (Max.) =		30,1818					
	Constraint	Left Hand Side	Direction	Right Hand Side	Slack or Surplus	Shadow Price	Allowable Min. RHS	Allowable Max. RHS
1	C1	4,0000	<=	4,0000	0	0,2727	-4,0000	40,0000
2	C2	20,0000	<=	20,0000	0	1,4545	7,5000	M
3	C3	-13,8182	<=	-7,0000	6,8182	0	-13,8182	M

# Nemhauser & Wolsey

Variable -->	X1	X2	Direction	R. H. S.
Maximize	7	2		
C1	-1	2	<=	4
C2	5	1	<=	20
C3	-2	-2	<=	-7
C4	0	1	<=	3
LowerBound	0	0		
UpperBound	M	M		
VariableType	Continuous	Continuous		

# Combined Report for Nemhauser & Wolsey

	22:59:36		Saturday	June	02	2012		
	Decision Variable	Solution Value	Unit Cost or Profit c(j)	Total or Contribution	Reduced Cost	Basis Status	Allowable Min. c(j)	Allowable Max. c(j)
1	X1	3,4000	7,0000	23,8000	0	basic	0	10,0000
2	X2	3,0000	2,0000	6,0000	0	basic	1,4000	M
	Objective Function (Max.) =		29,8000					
	Constraint	Left Hand Side	Direction	Right Hand Side	Slack or Surplus	Shadow Price	Allowable Min. RHS	Allowable Max. RHS
1	C1	2,6000	<=	4,0000	1,4000	0	2,6000	M
2	C2	20,0000	<=	20,0000	0	1,4000	13,0000	M
3	C3	-12,8000	<=	-7,0000	5,8000	0	-12,8000	M
4	C4	3,0000	<=	3,0000	0	0,6000	0	3,6364

# Nemhauser & Wolsey

Variable -->	X1	X2	Direction	R. H. S.
Maximize	7	2		
C1	-1	2	<=	4
C2	5	1	<=	20
C3	-2	-2	<=	-7
C4	0	1	>=	4
LowerBound	0	0		
UpperBound	M	M		
VariableType	Continuous	Continuous		

# Infeasibility Analysis for Nemhauser & Wolsey

Infeasible solution!!! Make any of the following RHS changes and solve the problem again.						
06-02-2012 23:01:11	Constraint	Direction	Right Hand Side	Shadow Price	Add More Than This To RHS	Add Up To This To RHS
1	C1	<=	4,0000	0,2727	0,8000	36,0000
2	C2	<=	20,0000	1,4545	4,0000	M
3	C3	<=	-7,0000	0	-M	6,8182
4	C4	>=	4,0000	0	-M	-0,3636

# Nemhauser & Wolsey

Variable -->	X1	X2	Direction	R. H. S.
Maximize	7	2		
C1	-1	2	<=	4
C2	5	1	<=	20
C3	-2	-2	<=	-7
C4	0	1	<=	3
C5	1	0	<=	3
LowerBound	0	0		
UpperBound	M	M		
VariableType	Continuous	Continuous		

# Combined Report for Nemhauser & Wolsey

	22:56:37		Saturday	June	02	2012		
	Decision Variable	Solution Value	Unit Cost or Profit c(j)	Total or Contribution	Reduced Cost	Basis Status	Allowable Min. c(j)	Allowable Max. c(j)
1	X1	3,0000	7,0000	21,0000	0	basic	0	M
2	X2	3,0000	2,0000	6,0000	0	basic	0	M
	Objective Function (Max.) =		27,0000					
	Constraint	Left Hand Side	Direction	Right Hand Side	Slack or Surplus	Shadow Price	Allowable Min. RHS	Allowable Max. RHS
1	C1	3,0000	<=	4,0000	1,0000	0	3,0000	M
2	C2	18,0000	<=	20,0000	2,0000	0	18,0000	M
3	C3	-12,0000	<=	-7,0000	5,0000	0	-12,0000	M
4	C4	3,0000	<=	3,0000	0	2,0000	0,5000	3,5000
5	C5	3,0000	<=	3,0000	0	7,0000	2,0000	3,4000



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Variable -->	X1	X2	Direction	R. H. S.
Maximize	7	2		
C1	-1	2	<=	4
C2	5	1	<=	20
C3	-2	-2	<=	-7
C4	0	1	<=	3
C5	1	0	>=	4
LowerBound	0	0		
UpperBound	M	M		
VariableType	Continuous	Continuous		

# Combined Report for Nemhauser & Wolsey

	22:53:58		Saturday	June	02	2012		
	Decision Variable	Solution Value	Unit Cost or Profit c(j)	Total or Contribution	Reduced Cost	Basis Status	Allowable Min. c(j)	Allowable Max. c(j)
1	X1	4,0000	7,0000	28,0000	0	basic	-M	10,0000
2	X2	0	2,0000	0	0	basic	1,4000	M
	Objective Function (Max.) =		28,0000					
	Constraint	Left Hand Side	Direction	Right Hand Side	Slack or Surplus	Shadow Price	Allowable Min. RHS	Allowable Max. RHS
1	C1	-4,0000	<=	4,0000	8,0000	0	-4,0000	M
2	C2	20,0000	<=	20,0000	0	2,0000	20,0000	23,0000
3	C3	-8,0000	<=	-7,0000	1,0000	0	-8,0000	M
4	C4	0	<=	3,0000	3,0000	0	0	M
5	C5	4,0000	>=	4,0000	0	-3,0000	3,4000	4,0000