Linear Programming Assignment

Matthew Vollkommer

1) P is margin. X is radial tires. Y is conventional tires

maximize p = 150x + 100y

2.5x + 2y <= 20000

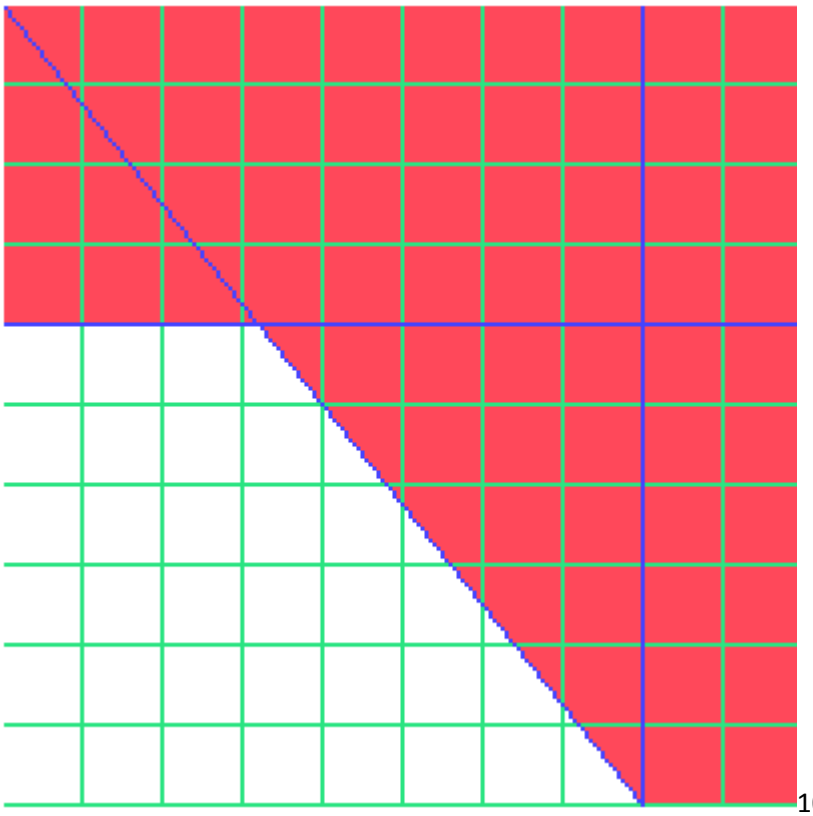
y <= 8000

x <= 6000

2)

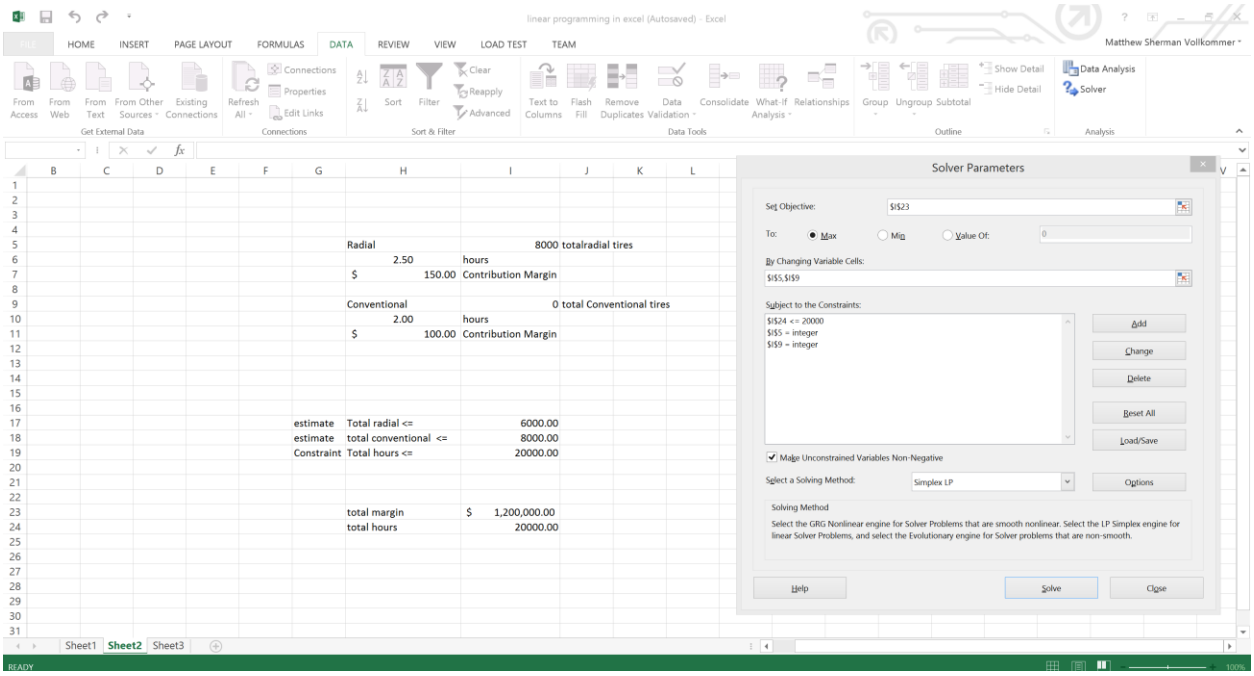
Vertex	Lines Through Vertex	Value of Objective
(8000,0)	2.5x+2y = 20000; x = 8000	1200000 Maximum
(3200,6000)	2.5x+2y = 20000; y = 6000	1080000

10000



0 10000

3)


linear programming in excel (Autosaved) - Excel
Matthew Sherman Vollkommer
HOME
INSERT
PAGE LAYOUT
FORMULAS
DATA
REVIEW
VIEW
LOAD TEST
TEAM
Radial 8000 totalradial tires
2.50 hours
$ 150.00 Contribution Margin
Conventional 0 total Conventional tires
2.00 hours
$ 100.00 Contribution Margin
estimate Total radial <= 6000.00
estimate total conventional <= 8000.00
Constraint Total hours <= 20000.00
total margin $ 1,200,000.00
total hours 20000.00
Solver Parameters
Set Objective: I23
To: Max Min Value Of: 0
By Changing Variable Cells: I5,I9
Subject to the Constraints:
I24 <= 20000
I5 = integer
I9 = integer
Add
Change
Delete
Reset All
Load/Save
Make Unconstrained Variables Non-Negative
Select a Solving Method: Simplex LP
Options
Solving Method
Select the GRG Nonlinear engine for Solver Problems that are smooth nonlinear. Select the LP Simplex engine for linear Solver Problems, and select the Evolutionary engine for Solver problems that are non-smooth.
Help
Solve
Close
Sheet1
Sheet2
Sheet3
READY