

Microsoft Excel 15.0 Answer Report**Worksheet:** [aviprada_hw1.xlsx]Sheet1**Report Created:** 18/01/2016 8:02:46 PM**Result:** Solver found a solution. All Constraints and optimality conditions are satisfied.**Solver Engine**

Engine: GRG Nonlinear

Solution Time: 0.032 Seconds.

Iterations: 0 Subproblems: 0

Solver Options

Max Time Unlimited, Iterations Unlimited, Precision 0.000001, Use Automatic Scaling

Convergence 0.0001, Population Size 100, Random Seed 0, Derivatives Forward, Require Bounds

Max Subproblems Unlimited, Max Integer Sols Unlimited, Integer Tolerance 1%, Assume NonNegat

Objective Cell (Min)

Cell	Name	Original Value	Final Value
\$C\$24	$24.55 \cdot x_1 + 26.75 \cdot x_2 + 39.00 \cdot x_3 + 40.50 \cdot x_4$	130.80000	29.89438

Variable Cells

Cell	Name	Original Value	Final Value	Integer
\$C\$19	$x_1 =$	1.00000	0.63552	Contin
\$C\$20	$x_2 =$	1.00000	0.00000	Contin
\$C\$21	$x_3 =$	1.00000	0.31270	Contin
\$C\$22	$x_4 =$	1.00000	0.05178	Contin

Constraints

Cell	Name	Cell Value	Formula	Status
\$C\$26	$2.3 \cdot x_1 + 5.6 \cdot x_2 + 11.1 \cdot x_3 + 1.3 \cdot x_4 - 5 \geq 0$	0.00000	$\$C\$26 \geq \$E\26	Binding
	$12 \cdot x_1 + 11.9 \cdot x_2 + 41.8 \cdot x_3 + 52.1 \cdot x_4 - 21$			
	$- 1.645 \cdot (0.28 \cdot x_1^2 + 0.19 \cdot x_2^2 + 20.5 \cdot x_3^2$			
\$C\$27	$+ 0.62 \cdot x_4^2)^{(1/2)} \geq 0$	0.00000	$\$C\$27 \geq \$E\27	Binding
\$C\$28	$x_1 + x_2 + x_3 + x_4 - 1 = 0$	0.00000	$\$C\$28 = \$E\28	Binding
\$C\$29	$x_1 \geq 0$	0.63552	$\$C\$29 \geq \$E\29	Not Binding
\$C\$30	$x_2 \geq 0$	0.00000	$\$C\$30 \geq \$E\30	Binding
\$C\$31	$x_3 \geq 0$	0.31270	$\$C\$31 \geq \$E\31	Not Binding
\$C\$32	$x_4 \geq 0$	0.05178	$\$C\$32 \geq \$E\32	Not Binding

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Slack
0.00000

0.00000
0
0.63552
0.00000
0.31270
0.05178