

Microsoft Excel 15.0 Answer Report**Worksheet:** [aviprada_hw1.xlsx]Sheet1**Report Created:** 18/01/2016 8:06:10 PM**Result:** Solver found a solution. All Constraints and optimality conditions are satisfied.**Solver Engine**

Engine: GRG Nonlinear

Solution Time: 0.062 Seconds.

Iterations: 1 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%

Objective Cell (Min)

Cell	Name	Original Value	Final Value
\$C\$7	$(x1 - x2)^2 + (x2 + x3 - 2)^2 + (x4 - 1)^2 + (x5 - 1)^2$	6.00000	4.09302

Variable Cells

Cell	Name	Original Value	Final Value	Integer
\$C\$1	x1 =	2.00000	-0.76744	Contin
\$C\$2	x2 =	2.00000	0.25581	Contin
\$C\$3	x3 =	2.00000	0.62791	Contin
\$C\$4	x4 =	2.00000	-0.11628	Contin
\$C\$5	x5 =	2.00000	0.25581	Contin

Constraints

Cell	Name	Cell Value	Formula	Status
\$C\$10	$x3 + x4 - 2 \cdot x5 = 0$	0.00000	$\$C\$10 = \$E\10	Binding
\$C\$11	$x2 - x5 = 0$	0.00000	$\$C\$11 = \$E\11	Binding
\$C\$12	$x1 \geq -10, x1 \leq 10$	-0.76744	$\$C\$12 \leq \$G\12	Not Binding
\$C\$12	$x1 \geq -10, x1 \leq 10$	-0.76744	$\$C\$12 \geq \$E\12	Not Binding
\$C\$13	$x2 \geq -10, x2 \leq 10$	0.25581	$\$C\$13 \leq \$G\13	Not Binding
\$C\$13	$x2 \geq -10, x2 \leq 10$	0.25581	$\$C\$13 \geq \$E\13	Not Binding
\$C\$14	$x3 \geq -10, x3 \leq 10$	0.62791	$\$C\$14 \leq \$G\14	Not Binding
\$C\$14	$x3 \geq -10, x3 \leq 10$	0.62791	$\$C\$14 \geq \$E\14	Not Binding
\$C\$15	$x4 \geq -10, x4 \leq 10$	-0.11628	$\$C\$15 \leq \$G\15	Not Binding
\$C\$15	$x4 \geq -10, x4 \leq 10$	-0.11628	$\$C\$15 \geq \$E\15	Not Binding
\$C\$16	$x5 \geq -10, x5 \leq 10$	0.25581	$\$C\$16 \leq \$G\16	Not Binding
\$C\$16	$x5 \geq -10, x5 \leq 10$	0.25581	$\$C\$16 \geq \$E\16	Not Binding
\$C\$9	$x1 + 3 \cdot x2 = 0$	0.00000	$\$C\$9 = \$E\9	Binding

Slack
0
0
10.76744129
9.23256
9.744186238
10.25581
9.372091207
10.62791
10.11628127
9.88372
9.744186238
10.25581
0