PM COMPUTER SERVICES

Month	Demand(Dt)	Employees (n)	New Hires(h)	LayOffs(f)	Regular Production (x)	Overtime Production(y)	Inventory(i)	Total Cost
1	63	5.000	0.000	0.000	63.500	3.000	3.500	6488.5
2	74	6.222	1.222	0.000	79.017	3.733	12.250	8436.8
3	95	6.222	0.000	0.000	79.017	3.733	0.000	8008.7
4	57	5.288	0.000	0.934	67.160	3.173	13.333	7305.7
5	68	5.288	0.000	0.000	67.160	3.173	15.667	7042.0
6	86	5.288	0.000	0.000	67.160	3.173	0.000	6807.0
		33.308	1.222	0.934		19.985	44.750	44088.8

Microsoft Excel 16.0 Sensitivity Report

Worksheet: [Pavithra_Pillappa_C5_PM Computer Services_IP_Implementation.xlsx]Sheet1

Report Created: 04-03-2025 17:35:43

Variable Cells

Cell	Name	Final Value	Reduced Cost	Objective Coefficient	Allowable Increase	Allowable Decrease
D4	New Hires(h)	1.11022E-16	0	7880	1E+30	39.25
E4	LayOffs(f)	0	0	-7360	1E+30	480.75
F4	Regular Production (x)	63.5	0	90	37.85433071	3.090551181
G4	Overtime Production(y)	3	0	102	81.83082707	65.41666667
D5	New Hires(h)	1.221804511	0	6600	26.16666667	320.5
E5	LayOffs(f)	0	0	-6080	1E+30	520
F5	Regular Production (x)	79.01691729	0	75	6.181102362	56.65354331
G5	Overtime Production(y)	3.733082707	0	87	99.06538462	1199.166667

Cell	Name	Final Value	Reduced Cost	Objective Coefficient	Allowable Increase	Allowable Decrease
D6	New Hires(h)	0	0	5320	1E+30	160.25
E6	LayOffs(f)	0	0	-4800	1E+30	359.75
F6	Regular Production (x)	79.01691729	0	60	6.181102362	25.23622047
G6	Overtime Production(y)	3.733082707	0	72	114.4115385	534.1666667
D7	New Hires(h)	0	0	4040	1E+30	520
E7	LayOffs(f)	0.93358396	0	-3520	78.5	320.5
F7	Regular Production (x)	67.160401	0	45	25.25590551	36.16141732
G7	Overtime Production(y)	3.172932331	0	57	62.70483461	765.4166667
D8	New Hires(h)	0	0	2760	1E+30	213.8333333
E8	LayOffs(f)	0	0	-2240	1E+30	306.1666667
F8	Regular Production (x)	67.160401	0	30	25.31496063	50.51181102

Cell	Name	Final Value		Reduced Cost	Objective Coefficient	Allowable Increase	Allowable Decrease
G8	Overtime Production(y)	3.172932331		0	42	77.93384224	1069.166667
D9	New Hires(h)	0		0	1480	1E+30	107.1666667
E9	LayOffs(f)	0		0	-960	1E+30	412.8333333
F9	Regular Production (x)	67.160401		0	15	48.75984252	12.65748031
G9	Overtime Production(y)	3.172932331		0	27	93.16284987	267.9166667

Constraints

Cell	Name	Final Value	Shadow Price	Constraint R.H. Side	Allowable Increase	Allowable Decrease
D4	New Hires(h)	1.11022E-16	39.25	0	0.814536341	1.11022E-16
E4	LayOffs(f)	0	480.75	0	0.263157895	0
F4	Regular Production (x)	63.5	0	0	63.5	1E+30

Cell	Name					
	Overtime					
G4	Production(y)	3	0	0	3	1E+30
H4	Inventory(i)	3.5	0	0	3.5	1E+30
D5	New Hires(h)	1.221804511	0	0	1.221804511	1E+30
E5	LayOffs(f)	0	520	0	1E+30	0
	Regular Production					
F5	(x)	79.01691729	0	0	79.01691729	1E+30
	Overtime					
G5	Production(y)	3.733082707	0	0	3.733082707	1E+30
H5	Inventory(i)	12.25	0	0	12.25	1E+30
D6	New Hires(h)	0	160.25	0	1.842105263	0
E6	LayOffs(f)	0	359.75	0	1.86716792	0
	Regular Production					
F6	(x)	79.01691729	0	0	79.01691729	1E+30
	Overtime					
G6	Production(y)	3.733082707	0	0	3.733082707	1E+30
H6	Inventory(i)	0	65.06892231	0	211	14.9
D7	New Hires(h)	0	520	0	1E+30	0

Cell	Name	Final Value	Reduced Cost	Objective Coefficient	Allowable Increase	Allowable Decrease
E7	LayOffs(f)	0.93358396	0	0	0.93358396	1E+30
F7	Regular Production (x)	67.160401	0	0	67.160401	1E+30
G7	Overtime Production(y)	3.172932331	0	0	3.172932331	1E+30
H7	Inventory(i)	13.33333333	0	0	13.33333333	1E+30
D8	New Hires(h)	0	213.8333333	0	1.503759398	0
E8	LayOffs(f)	0	306.1666667	0	1.40037594	0
F8	Regular Production (x)	67.160401	0	0	67.160401	1E+30
G8	Overtime Production(y)	3.172932331	0	0	3.172932331	1E+30
H8	Inventory(i)	15.66666667	0	0	15.66666667	1E+30
D9	New Hires(h)	0	107.1666667	0	1.766917293	0
E9	LayOffs(f)	0	412.8333333	0	2.80075188	0
F9	Regular Production (x)	67.160401	0	0	67.160401	1E+30

G9	Overtime Production(y)	3.172932331	0	0	3.172932331	1E+30
H9	Inventory(i)	0	118.7619048	0	37.25	23.5
F4	Regular Production (x)	63.5	-93.83082707	0	24.83333333	3.5
F5	Regular Production (x)	79.01691729	-108.8308271	0	24.83333333	24.5
F6	Regular Production (x)	79.01691729	-123.8308271	0	24.5	151.2122302
F7	Regular Production (x)	67.160401	-73.76190476	0	211	20
F8	Regular Production (x)	67.160401	-88.76190476	0	40	37.25

Cell	Name	Final Value				
F9	Regular Production (x)	67.160401	-103.7619048	0	23.5	37.25
G4	Overtime Production(y)	3	-81.83082707	0	24.83333333	3
G5	Overtime Production(y)	3.733082707	-96.83082707	0	24.83333333	3.819230769
G6	Overtime Production(y)	3.733082707	-111.8308271	0	24.5	3.819230769
G7	Overtime Production(y)	3.172932331	-61.76190476	0	211	3.221374046
G9	Overtime Production(y)	3.172932331	0	0	1E+30	63.98746867

G9	Overtime Production(y)	3.172932331	-91.76190476	0	3.55271E-15	3.221374046
G8	Overtime Production(y)	3.172932331	-76.76190476	0	40	3.221374046
G9	Overtime Production(y)	3.172932331	0	0	1E+30	3.55271E-15