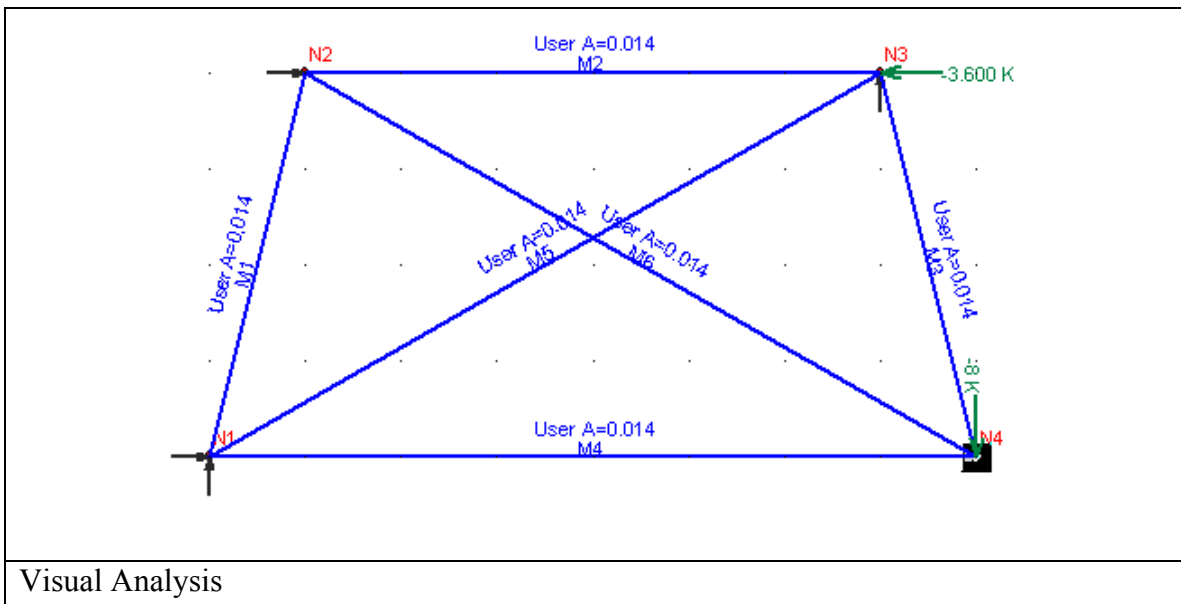
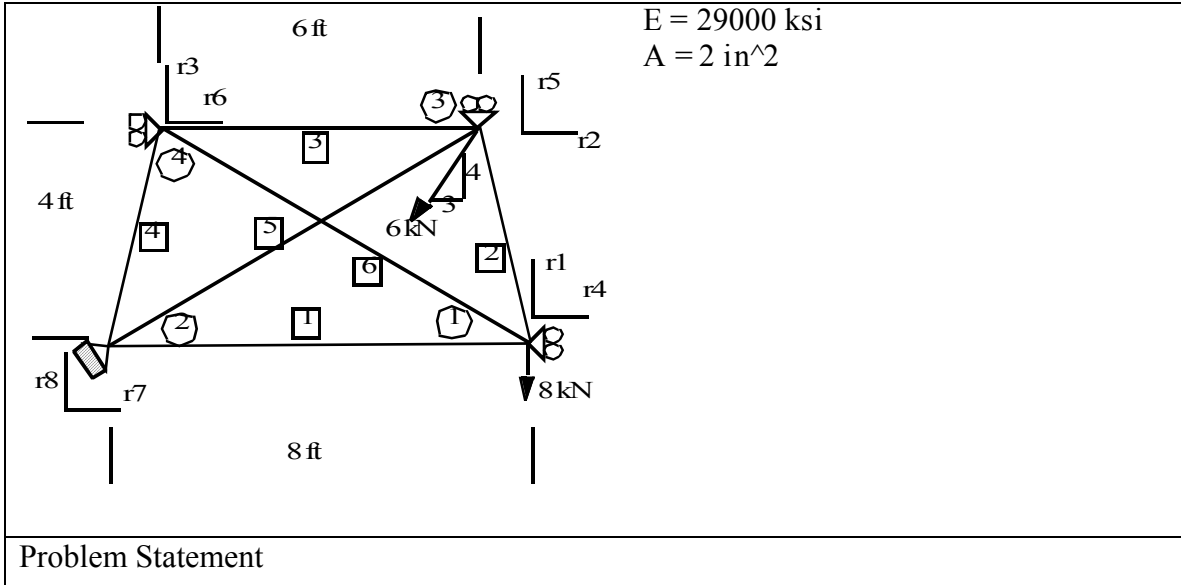
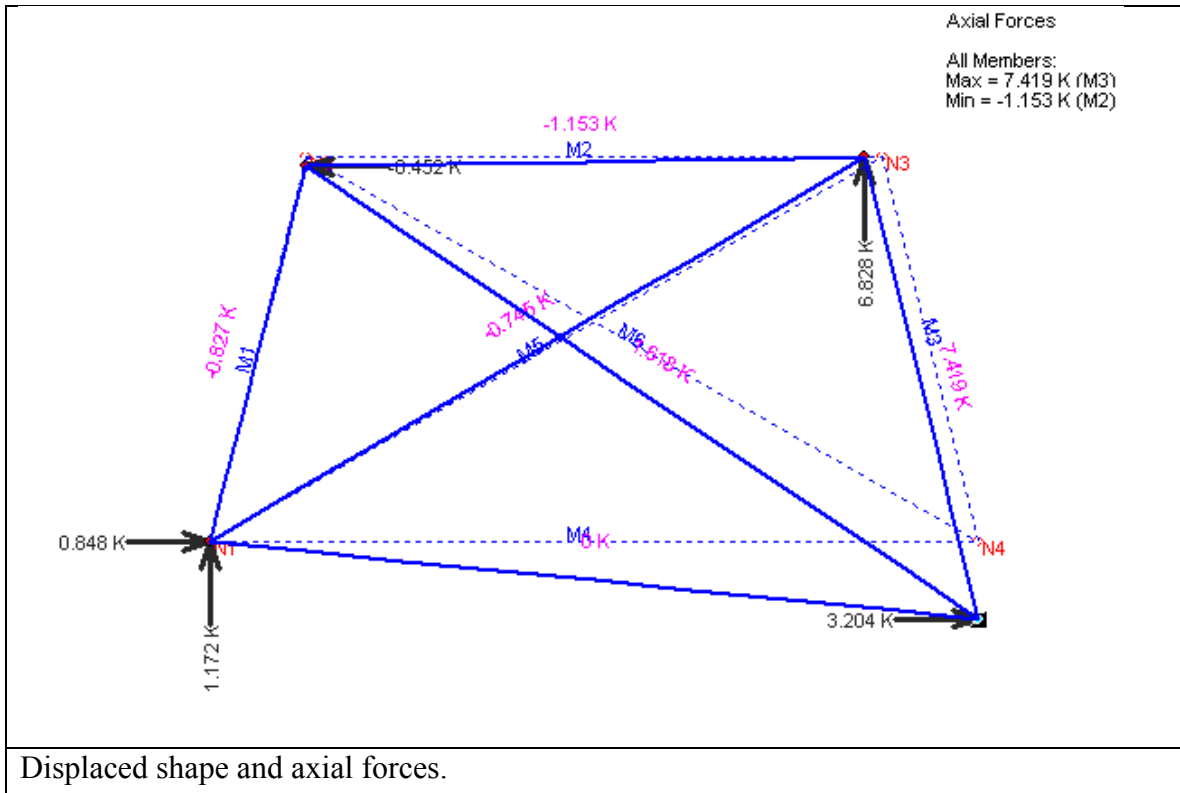


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For solution to **problem #1**, see the example write-up on the HW web page.

Problem #2





Nodal Displacements

Node	Load Case	DX ft	DY ft
N1	Service Case 1	-0.000000000	-0.000000000
N2	"	0.000000000	-0.000060615
N3	"	-0.000119327	-0.000000000
N4	"	-0.000000000	-0.000513801

Nodal Reactions

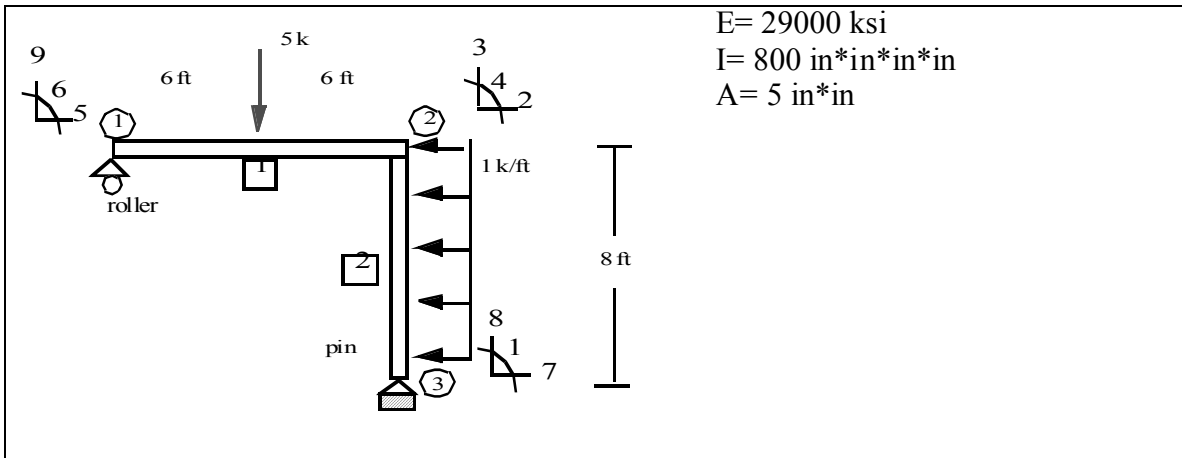
Node	Load Case	FX K	FY K
N1	Service Case 1	0.847762745	1.172308392
N2	"	-0.451539686	-NA-
N3	"	-NA-	6.827691608
N4	"	3.203776941	-NA-

Note that the reaction at N3 requires us to add back in the vertical component we left off the load, so the reaction should be 6.83 + 4/5*6 kips

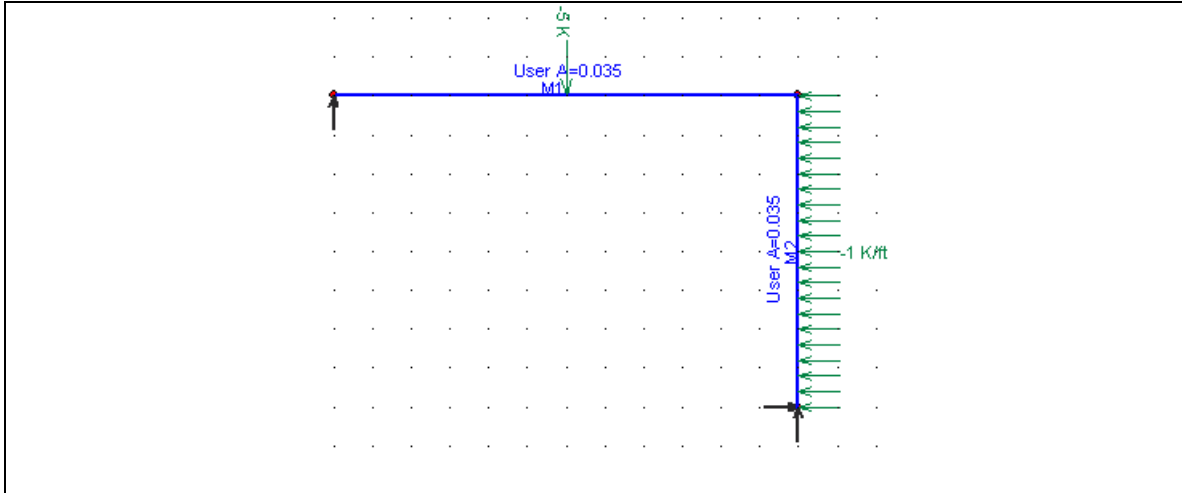
Member Internal Forces

Member	Load Case	Offset ft	Axial K
M1	Service Case 1	0.000000000	-0.827216677
M2	"	0.000000000	-1.153496425
M3	"	0.000000000	7.418994574
M4	"	0.000000000	-0.000000142
M5	"	0.000000000	-0.745336252
M6	"	0.000000000	1.617526852

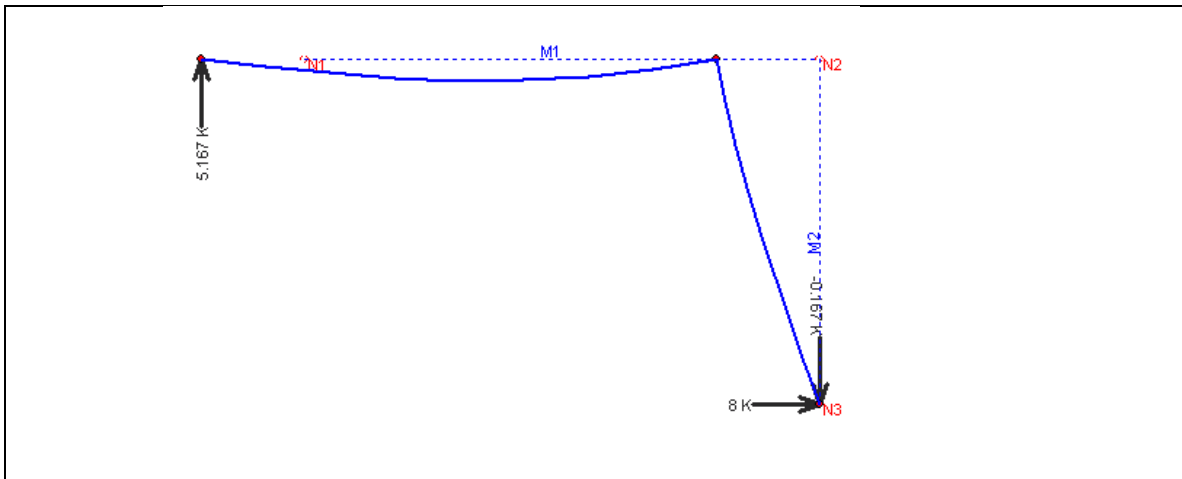
Problem #3



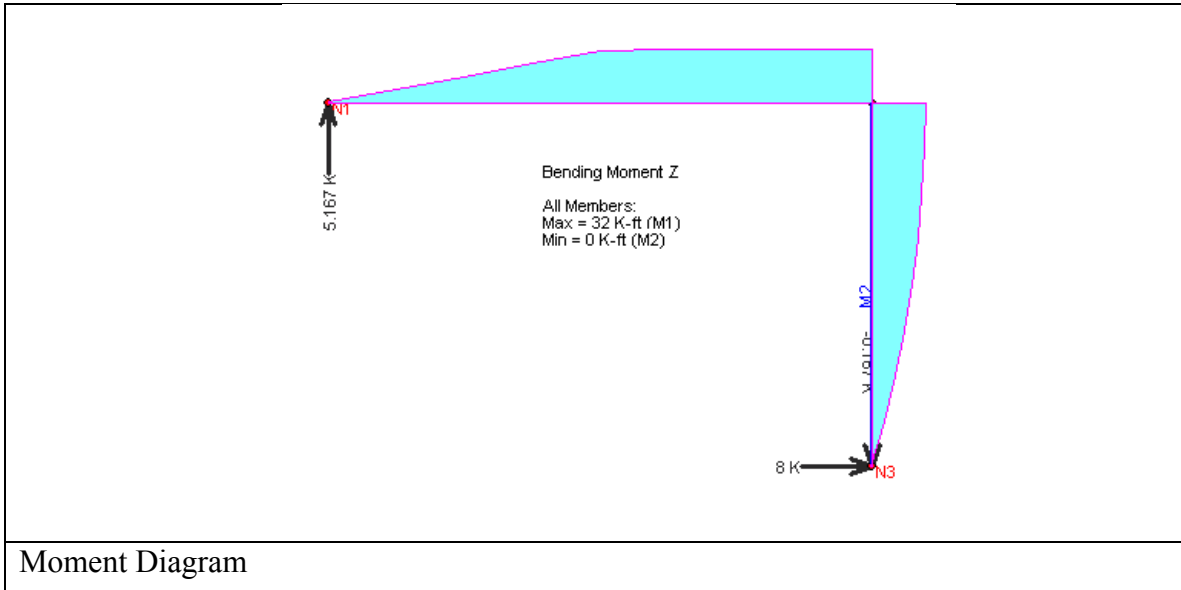
Problem Statement



Visual Analysis model



Deflected Shape



Nodal Displacements

Node	Load Case	DX ft	DY ft	RZ deg
N1	Service Case 4	-0.013893027	-0.000000000	-0.038719653
N2	"	-0.013893027	0.000009195	0.061567718
N3	"	-0.000000000	0.000000000	0.122261730

Nodal Reactions

Node	Load Case	FX K	FY K	MZ K-ft
N1	Service Case 4	-NA-	5.166666667	-NA-
N3	"	8.000000000	-0.166666667	-NA-

Note that unlike the previous problem, the reactions from loads that were left off are already in the final answer. That is, the equivalent nodal loads only place a vertical load of -2.5 kips at node 2, but our final reactions add to the proper value of 5.

Member Internal Forces

Member	Load Case	Offset ft	Axial K	Vy K	Mz K-ft
M1	Service Case 4	0.000000000	0.000000000	5.166666667	0.000000000
"	"	12.000000000	0.000000000	0.166666667	32.000000000
M2	"	0.000000000	0.166666667	-0.000000000	32.000000000
"	"	8.000000000	0.166666667	-8.000000000	-0.000000000

Note that the equivalent nodal loads are already factored out of the reactions