CERCHA DE 6 BARRAS CON APOYO INCLINADO EN 4 POR EL METODO DE BARRA ADICIONAL

L	3
°	90
E	1.00E+00
A	1
AE/L	0.333333333

Elemento 1-2
MATRIZ ELEMENTO EJES GLOBALES

	7	8	1	2
7	0	0	0	0
8	0	0.33333	0	-0.33333
1	0	0	0	0
2	0	-0.33333	0	0.33333

L	5
°	36.86989765
E	1.00E+00
A	2
AE/L	0.4

Elemento 1-3
MATRIZ ELEMENTO EJES GLOBALES

	7	8	3	4
7	0.256	0.192	-0.256	-0.192
8	0.192	0.144	-0.192	-0.144
3	-0.256	-0.192	0.256	0.192
4	-0.192	-0.144	0.192	0.144

L	4
°	0
E	1.00E+00
A	1
AE/L	0.25

Elemento 1-4
MATRIZ ELEMENTO EJES GLOBALES

	7	8	5	6
7	0.25	0	-0.25	0
8	0	0	0	0
5	-0.25	0	0.25	0
6	0	0	0	0

L	4
°	0
E	1.00E+00
A	1
AE/L	0.25

Elemento 2-3
MATRIZ ELEMENTO EJES GLOBALES

	1	2	3	4
1	0.25	0	-0.25	0
2	0	0	0	0
3	-0.25	0	0.25	0
4	0	0	0	0

L	5
°	323.1301024
E	1.00E+00
A	2
AE/L	0.4

Elemento 2-4
MATRIZ ELEMENTO EJES GLOBALES

	1	2	5	6
1	0.256	-0.192	-0.256	0.192
2	-0.192	0.144	0.192	-0.144
5	-0.256	0.192	0.256	-0.192
6	0.192	-0.144	-0.192	0.144

L	3
°	90
E	1.00E+00
A	1
AE/L	0.333333333

Elemento 4-3
MATRIZ ELEMENTO EJES GLOBALES

	5	6	3	4
5	0	0	0	0
6	0	0.33333	0	-0.33333
3	0	0	0	0
4	0	-0.33333	0	0.33333

INCLINACIÓN DEL APOYO -30

L	1
°	300
E	1.00E+00
A	1000
AE/L	1000

Elemento 1-1B
MATRIZ ELEMENTO EJES GLOBALES

	9	10	5	6
9	250	-433.0127	-250	433.0127
10	-433.0127	750	433.0127	-750
5	-250	433.0127	250	-433.0127
6	433.0127	-750	-433.0127	750

ensamble

	F
X2	0
Y2	-20
X3	60
Y3	-40
X4	0
Y4	0
X1	
Y1	
X5p	
Y5p	

=

	0	1	2	3	4	5	6
1	0.506	-0.192	-0.25	0	-0.256	0.192	
2	-0.192	0.47733	0	0	0.192	-0.144	
3	-0.25	0	0.506	0.192	0	0	
4	0	0	0.192	0.47733	0	-0.33333	
5	-0.256	0.192	0	0	250.506	-433.2047	
6	0.192	-0.144	0	-0.33333	-433.2047	750.47733	
7	0	0	-0.256	-0.192	-0.25	0	
8	0	-0.33333	-0.192	-0.144	0	0	
9					-250	433.0127	
10					433.0127	-750	

u2	
v2	
u3	
v3	
u4	
v4	
0	u4
0	v4
0	u1p
0	v1p

	UN
u2	117.0455866
v2	18.20634514
u3	256.0787654
v3	-209.9711387
u4	-57.26541137
v4	-33.17553386

=

kNN inv

3.659230251	1.328120503	2.020309756	-0.559735281	0.629023208	0.362166717
1.328120503	2.736181059	0.859060408	-0.534658546	-0.469055995	-0.270809604
2.020309756	0.859060408	3.547512987	-1.510229857	-0.204845779	-0.119267765
-0.559735281	-0.534658546	-1.510229857	3.251262956	1.358894614	0.785891501
0.629023208	-0.469055995	-0.204845779	1.358894614	3.166103343	1.827950609
0.362166717	-0.270809604	-0.119267765	0.785891501	1.827950609	1.056701105

*

	FN
	0
	-20
	60
	-40
	0
	0

	FA
X1	-10.92535246
Y1	-25
X5p	-49.07464754
Y5p	85

YL4	98.15

=

KAN

0	0	-0.256	-0.192	-0.25	0
0	-0.33333	-0.192	-0.144	0	0
0	0	0	0	-250	433.0127
0	0	0	0	433.0127	-750

*

	UN	
	117.0455866	1
	18.20634514	2
	256.0787654	3
	-209.9711387	4
	-57.26541137	5
	-33.17553386	6

Elemento 1-2

Fel=T^T*Fe		T^T					Fe=Ke*Ue		Ue
-6.07		6.12574E-17	1	0	0.00		0.00	7	0.000
0.00	=	-1	6.12574E-17	0	0.00	*	-6.07	8	0.000
6.07		0	0	6.12574E-17	1		0.00	1	117.046
0.00		0	0	-1	6.12574E-17		6.07	2	18.206

Elemento 1-3

Fel=T^T*Fe		T^T					Fe=Ke*Ue		Ue
-31.55		0.8	0.6	0	0.00		-25.24	7	0.000
0.00	=	-0.6	0.8	0	0.00	*	-18.93	8	0.000
31.55		0	0	0.8	0.6		25.24	3	256.079
0.00		0	0	-0.6	0.8		18.93	4	-209.971

Elemento 1-4

Fel=T^T*Fe		T^T					Fe=Ke*Ue		Ue
14.32		1	0	0	0.00		14.32	7	0.000
0.00	=	0	1	0	0.00	*	0.00	8	0.000
-14.32		0	0	1	0		-14.32	5	-57.265
0.00		0	0	0	1		0.00	6	-33.176

Elemento 2-3

Fel=T^T*Fe		T^T					Fe=Ke*Ue		Ue
-34.76		1	0	0	0.00		-34.76	1	117.046
0.00	=	0	1	0	0.00	*	0.00	2	18.206
34.76		0	0	1	0		34.76	3	256.079
0.00		0	0	0	1		0.00	4	-209.971

Elemento 2-4

Fel=T^T*Fe		T^T					Fe=Ke*Ue		Ue
43.45		0.8	-0.6	0	0.00		34.76	1	117.046
0.00	=	0.6	0.8	0	0.00	*	-26.07	2	18.206
-43.45		0	0	0.8	-0.6		-34.76	5	-57.265
0.00		0	0	0.6	0.8		26.07	6	-33.176

Elemento 4-3

Fel=T^T*Fe		T^T					Fe=Ke*Ue		Ue
58.93		6.12574E-17	1	0	0.00		0.00	5	-57.265
0.00	=	-1	6.12574E-17	0	0.00	*	58.93	6	-33.176
-58.93		0	0	6.12574E-17	1		0.00	3	256.079
0.00		0	0	-1	6.12574E-17		-58.93	4	-209.971