

b		24
h		1
L		4
E		1.00E+00
I		1
6E/L2	0.75	
12E/L3	0.375	
4E/L	2	
2E/L	1	

Elemento 1-2				
MATRIZ ELEMENTO EJES GLOBALES				
Fef		10	1	2
24	10	0.375	0.75	-0.375
16	1	0.75	2	-0.75
24	3	-0.375	-0.75	0.375
-16	2	0.75	1	-0.75

P	0
w	-12
Ffle	
	24
	16
*	24
	-16

b		12
h		1
L		4
E		1.00E+00
I		1
6E/L2	0.375	
12E/L3	0.1875	
4E/L	1	
2E/L	0.5	

Elemento 2-3				
MATRIZ ELEMENTO EJES GLOBALES				
Fef		3	2	11
24	3	0.1875	0.375	-0.1875
16	2	0.375	1	-0.375
24	11	-0.188	-0.375	0.1875
-16	4	0.375	0.5	-0.375

P/3	0
P	0
w	-12
Ffle	
	24
	16
*	24
	-16

b		12
h		1
L		3
E		1.00E+00
I		1
6E/L2	0.66666667	
12E/L3	0.44444444	
4E/L	1.33333333	
2E/L	0.66666667	

Elemento 3-4				
MATRIZ ELEMENTO EJES GLOBALES				
Fef		11	4	6
18	11	0.4444	0.6667	-0.4444
9	4	0.6667	1.3333	-0.6667
18	6	-0.444	-0.6667	0.4444
-9	5	0.6667	0.6667	-0.6667

P	0
w	-12
Ffle	
	18
	9
*	18
	-9

b		12
h		1
L		3
E		1.00E+00
I		1
6E/L2	0.66666667	
12E/L3	0.44444444	
4E/L	1.33333333	
2E/L	0.66666667	

Elemento 4-5				
MATRIZ ELEMENTO EJES GLOBALES				
Fef		6	7	12
18	6	0.4444	0.6667	-0.4444
9	7	0.6667	1.3333	-0.6667
18	12	-0.444	-0.6667	0.4444
-9	8	0.6667	0.6667	-0.6667

P	0
w	-12
Ffle	
	18
	9
*	18
	-9

b		12
h		1
L		6
E		1.00E+00
I		1
6E/L2	0.16666667	
12E/L3	0.05555556	
4E/L	0.66666667	
2E/L	0.33333333	

Elemento 5-6				
MATRIZ ELEMENTO EJES GLOBALES				
Fef		12	8	13
66	12	0.0556	0.1667	-0.0556
81	8	0.1667	0.6667	-0.1667
66	13	-0.056	-0.1667	0.0556
-81	9	0.1667	0.3333	-0.1667

P	-60
w	-12
Ffle	
	66
	81
*	66
	-81

ensamble

F		Ff	
M1=	0	1	16
M2=	0	2	0
Y2=	-60	3	48
M3=	0	4	-7
M4=	0	5	-9
Y4=	0	6	36
M4D=	0	7	9
M5=	0	8	72
M6=	-24	9	-81
Y1	0	10	24
Y3	0	11	42
Y5	0	12	84
Y6	-24	13	66

ensamble												
1	2	3	4	5	6	7	8	9	10	11	12	13
2	1	-0.75	0.0	0	0.0	0.0	0.0	0	0.75	0	0	0
1	3	-0.375	0.5	0	0	0.0	0.0	0	0.75	-0.375	0	0
3	-0.75	0.5625	0.375	0	0	0	0	0	-0.375	-0.1875	0	0
4	0.0	0.5	0.375	2.33333	0.6667	-0.6667	0	0	0	0.29167	0	0
5	0	0	0	0.6667	1.33333	-0.6667	0.0	0	0	0.6667	0	0
6	0.0	0	0	-0.6667	-0.6667	0.88888	0.6667	0.6667	0	-0.44444	-0.44444	0
7	0.0	0.0	0	0.0	0.6667	1.33333	0.6667	0	0	0	-0.6667	0
8	0.0	0.0	0	0.0	0.6667	0.6667	2	0.33333	0	0	-0.5	-0.1667
9	0.0	0	0	0	0	0.33333	0.6667	0	0	0.1667	-0.1667	0
10	0.8	0.8	-0.4	0	0.0	0	0	0	0.375	0	0	0
11	0.0	-0.375	-0.1875	0.29167	0.6667	-0.4444	0	0	0	0.63194	0	0
12	0.0	0.0	0.0	0	0.0	-0.4444	-0.6667	-0.5	0.1667	0	0.5	-0.0556
13	0	0	0	0	0	0	0	-0.1667	-0.1667	0	-0.0556	0.0556

U
01
02
v2
03
04i
v4
04d
05
06
v1
v3
v4
v5

FN		FNF	
1	0	1	16
2	0	2	0
3	-60	3	48
4	0	4	-7
5	0	5	-9
6	0	6	36
7	0	7	9
8	0	8	72
9	-24	9	-81

kNN inv									
01	-247.856958	1.346	-0.07690621	2.154	-0.6155	-0.3847	-1.385	0.5386	0.30777
02	-39.9284789	-0.077	0.461569	0.4103	-0.3077	-0.1924	-0.6925	0.2693	0.15388
v2	-692.856526	2.154	0.41031264	6.291	2.0516	-1.2825	-4.6165	1.79533	1.02589
03	215.642395	-0.615	-0.30773448	-2.052	1.53867	0.96187	3.4624	-1.3465	-0.7694
04i	122.426899	-0.385	-0.19237401	-1.282	0.96187	0.39091	5.53986	-2.1544	-1.2311
v4	446.994425	-1.385	-0.69247961	-4.617	3.4624	5.53986	14.542	-5.6553	-3.2316
04d	-148.582524	0.539	0.26929984	1.7953	-1.3465	-2.1544	-5.6553	3.11596	0.92339
05	-163.331539	0.308	0.15388397	1.0259	-0.7694	-1.2311	-3.2316	0.92339	1.38479
06	167.164117	-0.154	-0.07694083	-0.513	0.3847	0.61553	1.61575	-0.4617	-0.6924
FN-FNF									
	-16.00								
	0.00								
	-108.00								
	7.00								
	9.00								
	-36.00								
	-9.00								
	-72.00								
	57.00								

FA		Faf: fa		KAN*UN	
Y1	67.98	24	43.98	43.98	
Y3	132.74	42	90.74	90.74	
Y5	93.92	84	9.92	9.92	
Y6	89.36	90	-0.64	-0.64	

Elemento 12

F32		Fef		Ke*Ue	
07.98		24		43.98	
0.00		16		-16.00	
-19.98		24		-43.98	
175.93		-16		191.93	

Ue	
10	0
1	-247.86
3	-692.86
2	-39.928

Elemento 23

F23		Fef		Ke*Ue	
-40.02		24		-64.02	
-175.93		16		-191.93	
88.02		24		64.02	
-80.14		-16		-64.14	

Ue	
3	-692.86
2	-39.928
11	0
4	215.642

Elemento 34

F34		Fef		Ke*Ue	
44.72		18		26.72	
80.14		9		71.14	
-8.72		18		-26.72	
0.00		-9		9.00	

Ue	
11	0
4	215.642
6	446.994
5	122.427

Elemento 45

F34		Fef		Ke*Ue	
8.72		18		-9.28	
0.00		18		-9.00	
27.28		18		9.28	
-27.83		-9		-18.83	

Ue	
6	446.994
7	-148.58
12	0
8	-163.33

Elemento 56

F34		Fef		Ke*Ue	
66.64		66		0.64	
27.83		81		-53.17	
65.36		66		-0.64	
-24.00		-81		57.00	

Ue	
12	0
8	-163.33
13	0
9	167.164