

--- Paso 1: Lectura de input ---

Lectura de input completada

--- Paso 2: Preprocesamiento ---

1.0e+09 *

Columns 1 through 8

Columns 9 through 16

Columns 17 through 24

| Columns 17 through 24 | | | | | | | |
|-----------------------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 0 | -0.6192 | -0.4954 | 0 | 0 | 0 | 0 |
| 0 | 0 | -0.4954 | -0.3963 | 0 | 0 | 0 | 0 |
| 0 | 0 | -0.6192 | 0.4954 | -0.6192 | -0.4954 | 0 | 0 |
| 0 | 0 | 0.4954 | -0.3963 | -0.4954 | -0.3963 | 0 | 0 |
| 0 | 0 | 0 | 0 | -0.6192 | 0.4954 | -0.6192 | -0.4954 |
| 0 | 0 | 0 | 0 | 0.4954 | -0.3963 | -0.4954 | -0.3963 |
| 0 | 0 | 0 | 0 | 0 | 0 | -0.6192 | 0.4954 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0.4954 | -0.3963 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.4800 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1.0992 | -0.4954 | 0 | 0 | 0 | 0 | 0 | 0 |

Columns 25 through 32

| | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.6192 | -0.4954 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.4954 | -0.3963 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.6192 | 0.4954 | -0.6192 | -0.4954 | 0 | 0 | 0 | 0 |
| 0.4954 | -0.3963 | -0.4954 | -0.3963 | 0 | 0 | 0 | 0 |
| 0 | 0 | -0.6192 | 0.4954 | -0.6192 | -0.4954 | 0 | 0 |
| 0 | 0 | 0.4954 | -0.3963 | -0.4954 | -0.3963 | 0 | 0 |
| 0 | 0 | 0 | 0 | -0.6192 | 0.4954 | -0.6192 | -0.4954 |
| 0 | 0 | 0 | 0 | 0.4954 | -0.3963 | -0.4954 | -0.3963 |
| 0 | 0 | 0 | 0 | 0 | 0 | -0.6192 | 0.4954 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | -0.3963 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2.4768 | 0.0000 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0.0000 | 1.5852 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 2.4768 | 0.0000 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0.0000 | 1.5852 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 0 | 0 | 0 | 2.4768 | 0.0000 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0.0000 | 1.5852 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 2.4768 | 0.0000 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0.0000 | 1.5852 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.6192 | 0.4954 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0.4954 | -0.3963 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.6192 | -0.4954 | -0.6192 | 0.4954 | 0 | 0 | 0 | 0 |
| -0.4954 | -0.3963 | 0.4954 | -0.3963 | 0 | 0 | 0 | 0 |
| 0 | 0 | -0.6192 | -0.4954 | -0.6192 | 0.4954 | 0 | 0 |
| 0 | 0 | -0.4954 | -0.3963 | 0.4954 | -0.3963 | 0 | 0 |
| 0 | 0 | 0 | 0 | -0.6192 | -0.4954 | -0.6192 | 0.4954 |
| 0 | 0 | 0 | 0 | -0.4954 | -0.3963 | 0.4954 | -0.3963 |
| 0 | 0 | 0 | 0 | 0 | 0 | -0.6192 | -0.4954 |
| 0 | 0 | 0 | 0 | 0 | 0 | -0.4954 | -0.3963 |

Columns 33 through 40

| | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | -0.4608 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | -0.4608 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | -0.4608 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.6192 | -0.4954 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.4954 | -0.3963 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.6192 | 0.4954 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0.4954 | -0.3963 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | -0.6192 | -0.4954 | 0 | 0 | 0 | 0 |
| 0 | 0 | -0.4954 | -0.3963 | 0 | 0 | 0 | 0 |
| 0 | 0 | -0.6192 | 0.4954 | -0.6192 | -0.4954 | 0 | 0 |
| 0 | 0 | 0.4954 | -0.3963 | -0.4954 | -0.3963 | 0 | 0 |
| 0 | 0 | 0 | 0 | -0.6192 | 0.4954 | -0.6192 | -0.4954 |
| 0 | 0 | 0 | 0 | 0.4954 | -0.3963 | -0.4954 | -0.3963 |
| 0 | 0 | 0 | 0 | 0 | 0 | -0.6192 | 0.4954 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0.4954 | -0.3963 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1.8576 | -0.4954 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.4954 | 1.1889 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 1.7184 | 0.0000 | -0.4800 | 0 | 0 | 0 |
| 0 | 0 | 0.0000 | 1.2534 | 0 | 0 | 0 | 0 |
| 0 | 0 | -0.4800 | 0 | 2.1984 | 0.0000 | -0.4800 | 0 |
| 0 | 0 | 0 | 0 | 0.0000 | 1.2534 | 0 | 0 |
| 0 | 0 | 0 | 0 | -0.4800 | 0 | 2.1984 | 0.0000 |

| | | | | | | | |
|-----------------------|---------|---------|---------|---------|---------|---------|---------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0.0000 | 1.2534 |
| 0 | 0 | 0 | 0 | 0 | 0 | -0.4800 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.6192 | 0.4954 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0.4954 | -0.3963 | 0 | 0 | 0 | 0 | 0 | 0 |
| Columns 41 through 48 | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | -0.4608 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | -0.4608 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | -0.4608 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | -0.4608 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.6192 | -0.4954 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.4954 | -0.3963 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.6192 | 0.4954 | -0.6192 | -0.4954 | 0 | 0 | 0 | 0 |
| 0.4954 | -0.3963 | -0.4954 | -0.3963 | 0 | 0 | 0 | 0 |
| 0 | 0 | -0.6192 | 0.4954 | -0.6192 | -0.4954 | 0 | 0 |
| 0 | 0 | 0.4954 | -0.3963 | -0.4954 | -0.3963 | 0 | 0 |
| 0 | 0 | 0 | 0 | -0.6192 | 0.4954 | -0.6192 | -0.4954 |
| 0 | 0 | 0 | 0 | 0.4954 | -0.3963 | -0.4954 | -0.3963 |
| 0 | 0 | 0 | 0 | 0 | 0 | -0.6192 | 0.4954 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0.4954 | -0.3963 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.4800 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2.1984 | 0.0000 | -0.4800 | 0 | 0 | 0 | 0 | 0 |
| 0.0000 | 1.2534 | 0 | 0 | 0 | 0 | 0 | 0 |
| -0.4800 | 0 | 2.1984 | 0.0000 | -0.4800 | 0 | 0 | 0 |
| 0 | 0 | 0.0000 | 1.2534 | 0 | 0 | 0 | 0 |
| 0 | 0 | -0.4800 | 0 | 2.1984 | 0.0000 | -0.4800 | 0 |
| 0 | 0 | 0 | 0 | 0.0000 | 1.2534 | 0 | 0 |
| 0 | 0 | 0 | 0 | -0.4800 | 0 | 1.7184 | 0.0000 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0.0000 | 1.2534 |

Preprocesamiento completado

--- Paso 3: Procesamiento ---

--- Comprobación de equilibrio ---
Suma de fuerzas en X: 5.4715e-09 N
Suma de fuerzas en Y: -3.4925e-08 N

--- Resultados ---

Desplazamientos nodales (d):

| | |
|---------|---------|
| 0 | 0 |
| 0 | 0 |
| -0.0009 | -0.0063 |
| -0.0008 | -0.0111 |
| -0.0000 | -0.0131 |
| 0.0008 | -0.0111 |
| 0.0009 | -0.0063 |
| 0 | 0 |
| 0 | 0 |
| 0.0004 | 0.0005 |
| 0.0014 | -0.0029 |
| 0.0007 | -0.0089 |
| 0.0002 | -0.0127 |
| -0.0002 | -0.0127 |
| -0.0007 | -0.0089 |
| -0.0014 | -0.0029 |
| -0.0004 | 0.0005 |
| 0.0024 | -0.0012 |
| 0.0029 | -0.0058 |
| 0.0017 | -0.0107 |
| -0.0000 | -0.0126 |
| -0.0017 | -0.0107 |
| -0.0029 | -0.0058 |
| -0.0024 | -0.0012 |

Tensiones en los elementos:

| | |
|-----------|--|
| 1.0e+07 * | |
| 0 | |
| -2.9551 | |
| 0.4054 | |
| 2.5668 | |
| 2.5668 | |
| 0.4054 | |
| -2.9551 | |
| 0 | |
| 2.2706 | |
| 0.0002 | |
| -3.8309 | |
| -2.7262 | |
| 1.2164 | |
| 1.8832 | |
| -1.3326 | |
| 1.0299 | |
| 1.2817 | |
| -0.6104 | |
| 0.1758 | |
| 1.3489 | |
| 0.1758 | |
| -0.6104 | |
| 1.2817 | |
| 1.0299 | |
| -1.3326 | |
| 1.8832 | |
| 1.2164 | |
| -2.7262 | |
| -3.8309 | |

0.0002
2.2706
2.2739
1.2096
-2.7264
1.0335
-1.3348
0.1787
-0.6121
-0.6121
0.1787
-1.3348
1.0335
-2.7264
1.2096
2.2739
1.4108
-3.5567
-5.5624
-5.5624
-3.5567
1.4108

Barra 48 tiene la máxima tensión de -55623897.672 N

Barras fallidas:

Ninguna barra falló.

--- Reacciones en los Apoyos ---

```
0.0000  
-0.0000  
0.0000  
-0.0000  
-0.0000  
-0.0000  
0.0000  
0.0000  
0.0000  
-0.0000  
0.0000  
0.0000  
-0.0000  
-0.0000  
-0.0000
```

Procesamiento completado

--- Paso 4: Postprocesamiento ---

Postprocesamiento completado

--- Simulación completada correctamente ---

>>