

>> code

Total mass and cg. $[[x \ y], M]$ - Wikipedia Collapsing conditions

M1 =

25 35 2

M2 =

66 42 5

description of each contact $[b1, b2, x, y, \text{Contact Normal}, u]$ - - Wikipedia Collapsing conditions

b10 =

1.0000 0 0 0 1.5708 0.1000

b12 =

1.0000 2.0000 60.0000 60.0000 3.1416 0.5000

b202 =

2.0000 0 60.0000 0 1.5708 0.5000

b201 =

2.0000 0 72.0000 0 1.5708 0.5000

Collapsing assembly :

No feasible solution found.

Linprog stopped because no point satisfies the constraints.

k =

[]

>> code

Total mass and cg. [[x y], M]- Wikipedia Stable conditions

M1 =

25 35 2

M2 =

66 42 10

description of each contact [b1,b2,x,y>Contact Normal,u] - Wikipedia Stable conditions

b10 =

1.0000 0 0 0 1.5708 0.5000

b12 =

1.0000 2.0000 60.0000 60.0000 3.1416 0.5000

b202 =

2.0000 0 60.0000 0 1.5708 0.5000

b201 =

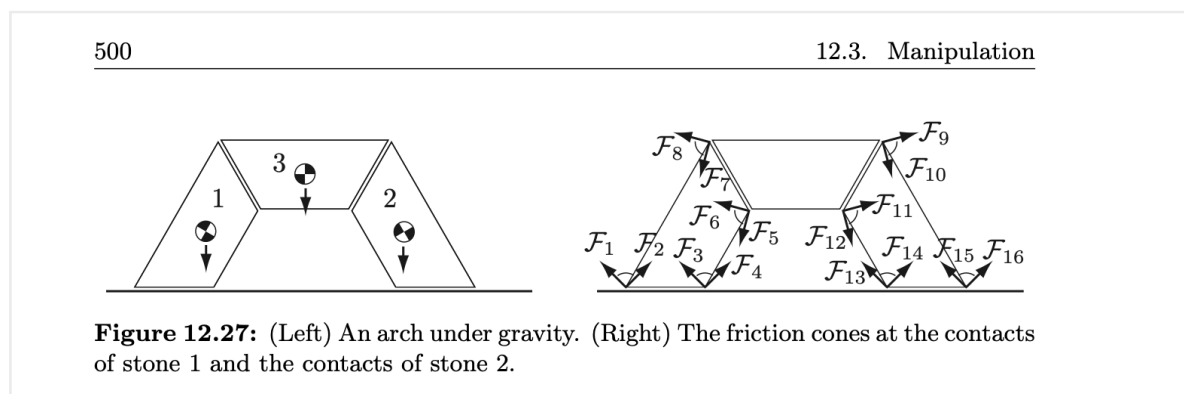
2.0000 0 72.0000 0 1.5708 0.5000

Assembly that can continue to stand:
Optimal solution found.

k =

1.0000
1.2650
1.0000
1.0000
1.0000
1.0000
5.5902
1.3251

Optimal solution found.



>> code

Total mass and cg. $[[x \ y], M]$ - Figure 12.27 Collapsing conditions

M1 =

-20 35 1

M2 =

20 30 1

M3 =

40 0 20

description of each contact [b1,b2,x,y>Contact Normal,u] - Figure 12.27
Collapsing conditions

b10 =

1.0000 0 -10.0000 0 1.5708 0.1000

b101 =

1.0000 0 -20.0000 0 1.5708 0.1000

b20 =

2.0000 0 10.0000 0 1.5708 0.1000

b202 =

2.0000 0 20.0000 0 1.5708 0.1000

b131 =

1.0000 3.0000 -8.0000 35.0000 2.3562 0.1000

b132 =

1.0000 3.0000 -12.0000 45.0000 2.3562 0.1000

b231 =

2.0000 3.0000 8.0000 35.0000 -0.7854 0.1000

b232 =

```
2.0000  3.0000 12.0000 45.0000 -0.7854  0.1000
```

Collapsing assembly :

No feasible solution found.

Linprog stopped because no point satisfies the constraints.

k =

```
[]
```

>> code

Total mass and cg. $[[x \ y], M]$ - Figure 12.27 Stable conditions

M1 =

```
-20  35  20
```

M2 =

```
20  30  30
```

M3 =

```
40  0  5
```

description of each contact $[b1,b2,x,y,Contact \ Normal,u]$ - Figure 12.27 Stable conditions

b10 =

```
1.0000    0 -10.0000    0  1.5708  0.5000
```

b101 =

```
1.0000    0 -20.0000    0  1.5708  0.5000
```

b20 =

```
2.0000    0  10.0000    0  1.5708  0.5000
```

b202 =

2.0000 0 20.0000 0 1.5708 0.5000

b131 =

1.0000 3.0000 -8.0000 35.0000 2.3562 0.5000

b132 =

1.0000 3.0000 -12.0000 45.0000 2.3562 0.5000

b231 =

2.0000 3.0000 8.0000 35.0000 -0.7854 0.5000

b232 =

2.0000 3.0000 12.0000 45.0000 -0.7854 0.5000

Assembly that can continue to stand:
Optimal solution found.

k =

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

1.0000

15.6870

1.0000

1.0000

19.4973

1.0000

26.5637

1.0000