Input PD code or string to snappy (use to reproduce the drawing):

[(1, 7, 2, 6), (4, 9, 5, 10), (2, 12, 3, 11), (7, 13, 8, 12), (18, 13, 1, 14), (3, 17, 4, 16), (5, 14, 6, 15), (8, 18, 9, 17), (10, 15, 11, 16)]

Optimal pinning sets:

A) $\{10, 9, 6, 2\}$

B) $\{8, 1, 3, 4\}$

Minimal pinning sets:

a) $\{10, 8, 6, 11, 2, 7\}$

b) $\{8, 6, 5, 11, 2, 9\}$

c) $\{10, 8, 5, 9, 2, 7\}$

d) $\{8, 11, 5, 4, 2, 1\}$

e) $\{10, 6, 3, 9, 4, 1\}$

f) $\{8, 11, 3, 4, 2, 7\}$

g) $\{8, 3, 5, 2, 1, 7\}$

h) $\{8, 6, 11, 4, 2\}$

i) $\{8, 11, 5, 2, 7\}$

j) $\{8, 9, 5, 2, 1\}$

k) $\{10, 8, 3, 2, 7\}$

Number of minimal pinning sets: 13
Number of total pinning sets: 395
Pinning number: 4

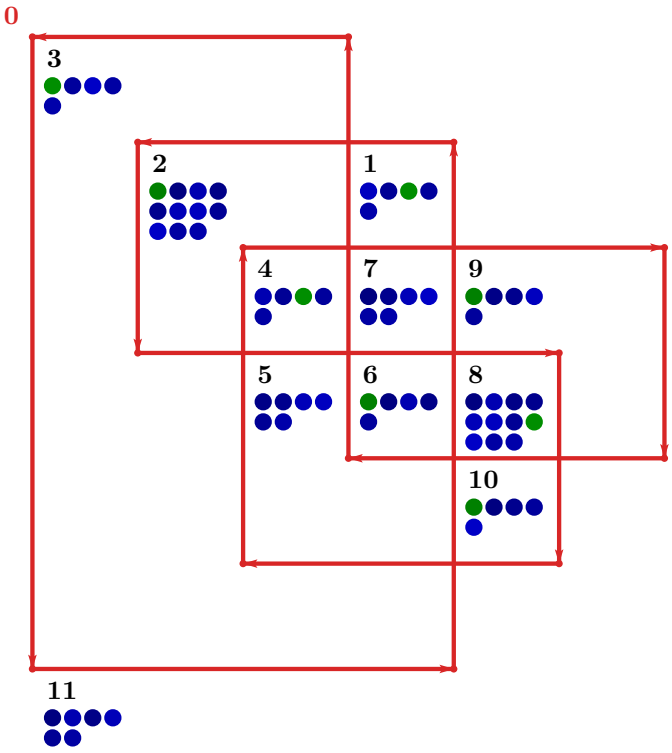

Figure 1: Snappy loop plot.

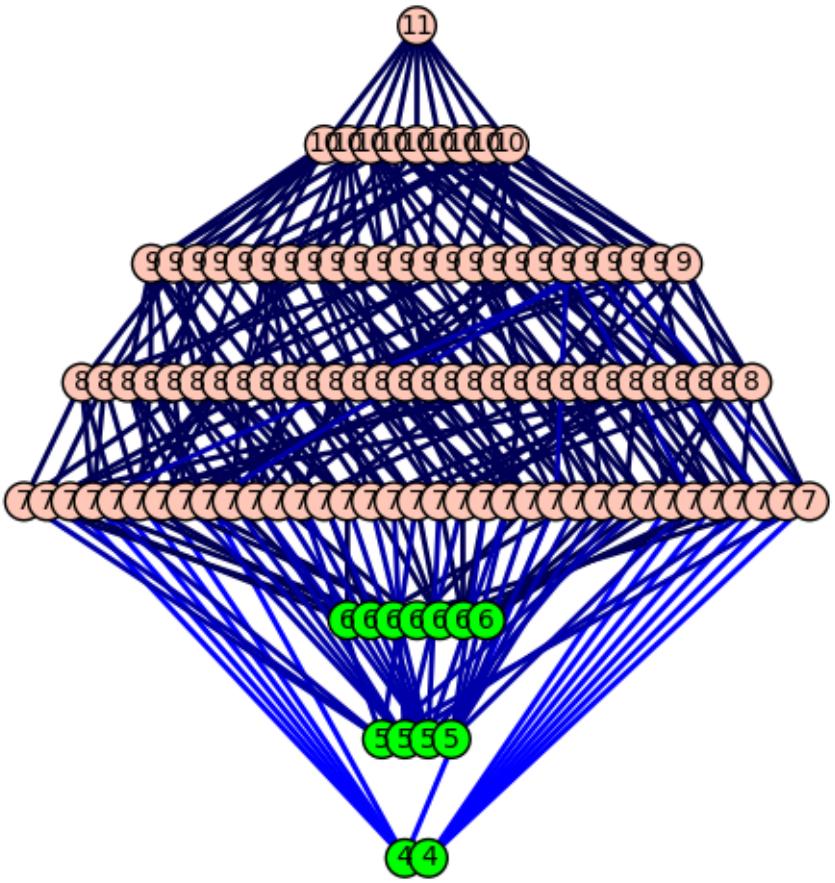

Figure 2: Minimal join semilattice of pinning sets.

Input PD code or string to snappy (use to reproduce the drawing):

8_3

Optimal pinning sets:

0

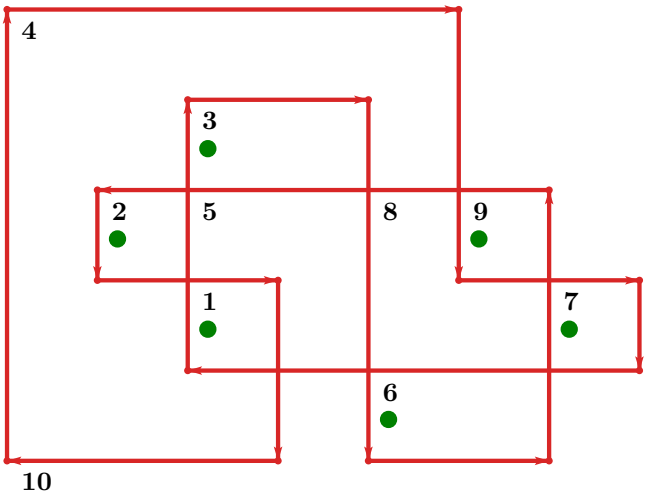

Figure 3: Snappy loop plot.

A) ● $\{9, 7, 6, 1, 3, 2\}$

Number of minimal pinning sets: 1
Number of total pinning sets: 16
Pinning number: 6

Figure 4: Minimal join semilattice of pinning sets.

Input PD code or string to snappy (use to reproduce the drawing):

3_1

Optimal pinning sets:

0

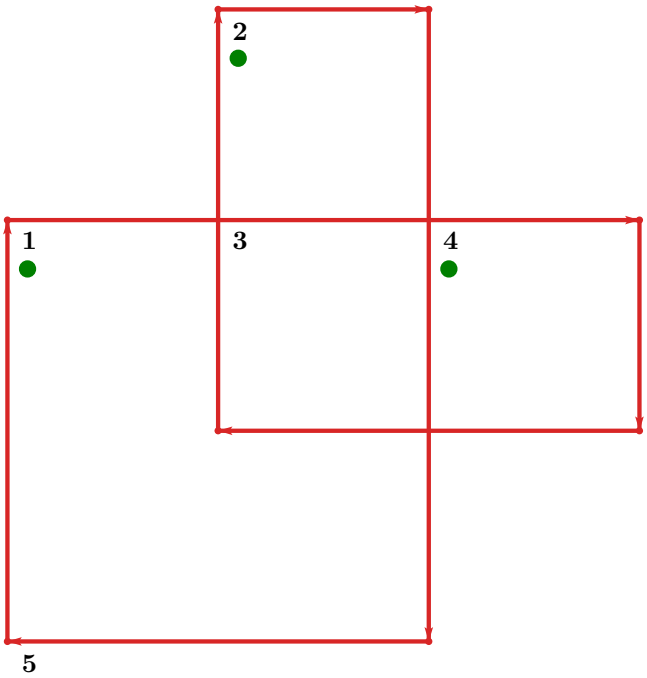

Figure 5: Snappy loop plot.

A) $\{4, 1, 2\}$

Number of minimal pinning sets: 1
Number of total pinning sets: 4
Pinning number: 3

Figure 6: Minimal join semilattice of pinning sets.

Input PD code or string to snappy (use to reproduce the drawing):

[(1, 7, 2, 6), (3, 8, 4, 9), (5, 11, 6, 10), (16, 12, 1, 11), (2, 13, 3, 14), (4, 16, 5, 15), (7, 12, 8, 13), (9, 15, 10, 14)]

Optimal pinning sets:

A) $\{9, 7, 1, 3, 5\}$

B) $\{8, 10, 1, 3, 5\}$

C) $\{8, 7, 1, 3, 4\}$

D) $\{9, 7, 1, 3, 4\}$

E) $\{9, 8, 2, 4, 5\}$

F) $\{9, 7, 2, 6, 4\}$

G) $\{9, 8, 2, 3, 5\}$

H) $\{9, 7, 2, 3, 5\}$

I) $\{8, 7, 2, 1, 4\}$

J) $\{8, 2, 1, 4, 5\}$

Number of minimal pinning sets: 10

Number of total pinning sets: 160

Pinning number: 5

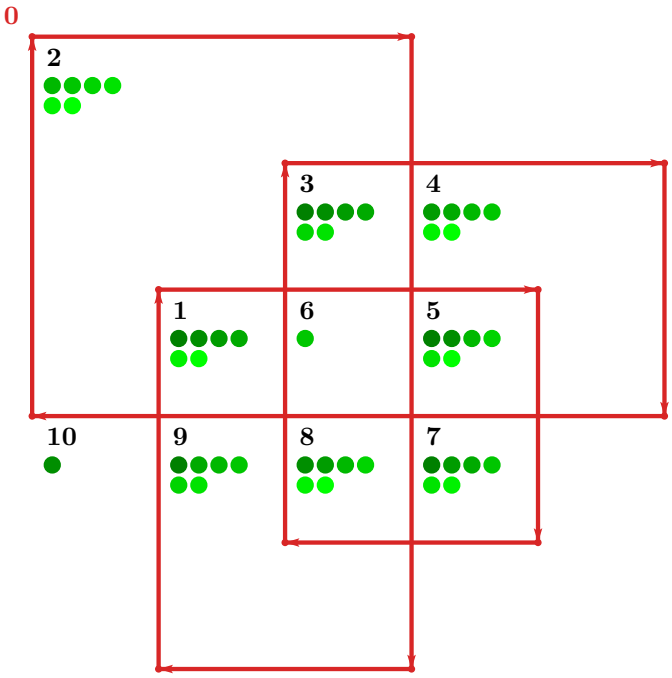

Figure 7: Snappy loop plot.

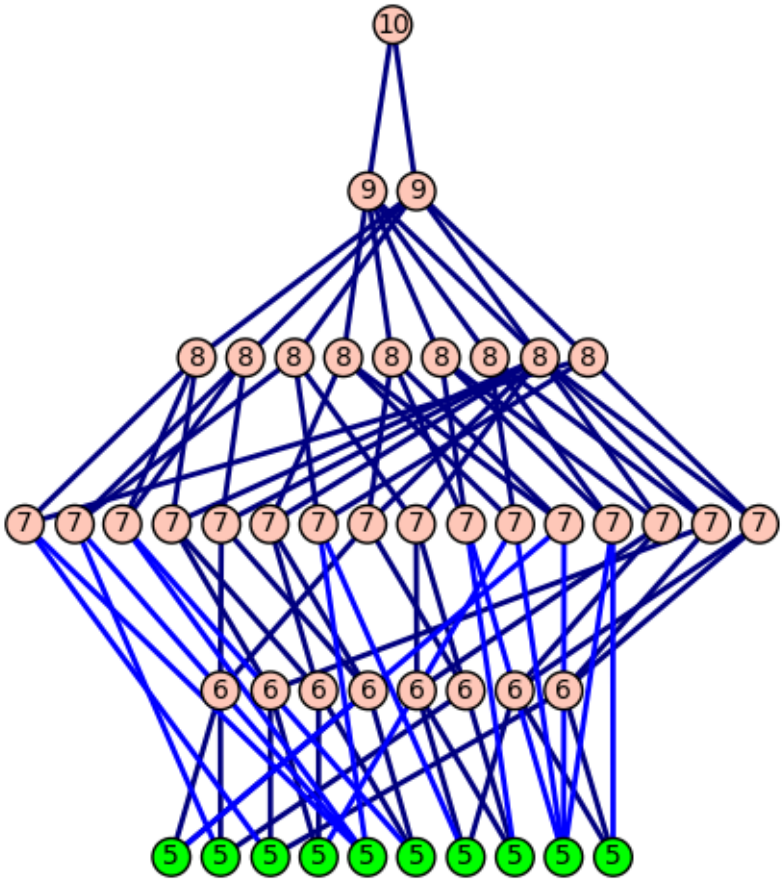

Figure 8: Minimal join semilattice of pinning sets.

Input PD code or string to snappy (use to reproduce the drawing):

[(24, 6, 1, 5), (3, 10, 4, 11), (1, 13, 2, 12), (6, 14, 7, 13), (2, 17, 3, 18), (8, 15, 9, 16), (11, 19, 12, 18), (4, 20, 5, 19), (7, 23, 8, 22), (9, 20, 10, 21), (14, 24, 15, 23), (16, 21, 17, 22)]

Optimal pinning sets:

A) $\{8, 4, 13, 9, 2\}$

B) $\{7, 6, 1, 11, 3\}$

C) $\{6, 8, 1, 9, 2\}$

D) $\{7, 6, 1, 9, 2\}$

Minimal pinning sets:

a) $\{7, 6, 4, 13, 2, 9\}$

b) $\{7, 8, 4, 13, 2, 11\}$

c) $\{7, 6, 4, 13, 2, 11\}$

d) $\{6, 8, 5, 13, 2, 9\}$

e) $\{7, 6, 5, 13, 2, 9\}$

f) $\{7, 6, 5, 13, 2, 11\}$

g) $\{7, 8, 1, 4, 3, 11\}$

h) $\{8, 4, 1, 11, 3, 9\}$

i) $\{6, 8, 1, 11, 3, 9\}$

j) $\{8, 4, 1, 9, 3, 12\}$

k) $\{6, 8, 1, 9, 3, 12\}$

l) $\{7, 6, 1, 9, 3, 12\}$

m) $\{14, 8, 1, 4, 2, 9\}$

n) $\{7, 8, 1, 4, 2, 11\}$

o) $\{7, 6, 1, 4, 2, 11\}$

p) $\{8, 4, 1, 11, 2, 9\}$

q) $\{7, 6, 1, 11, 2, 10\}$

r) $\{8, 4, 1, 9, 2, 12\}$

s) $\{7, 6, 1, 5, 2, 11\}$

Number of minimal pinning sets: 23
Number of total pinning sets: 2400
Pinning number: 5

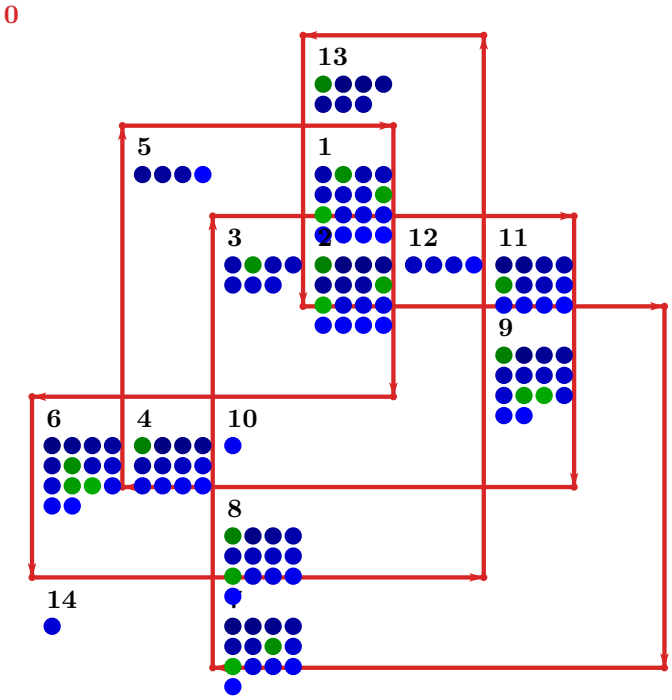

Figure 9: Snappy loop plot.

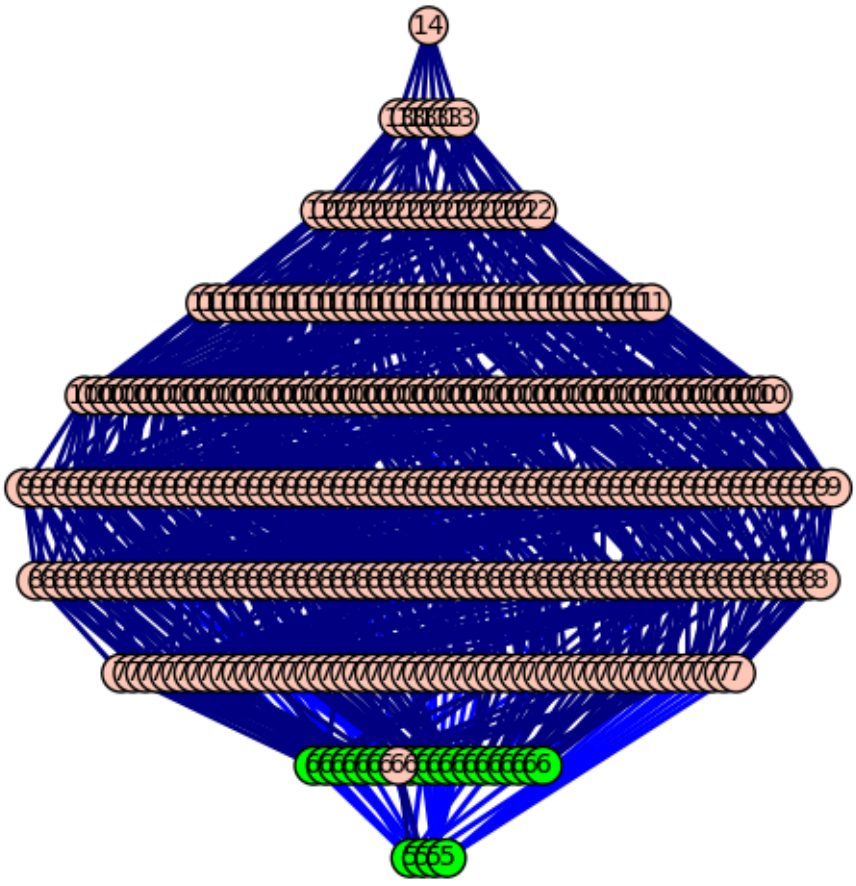

Figure 10: Minimal join semilattice of pinning sets.

Input PD code or string to snappy (use to reproduce the drawing):

4_1

Optimal pinning sets:

A) ● $\{5, 2, 4, 1\}$

B) ● $\{5, 3, 6, 1\}$

Number of minimal pinning sets: 2

Number of total pinning sets: 7

Pinning number: 4

0

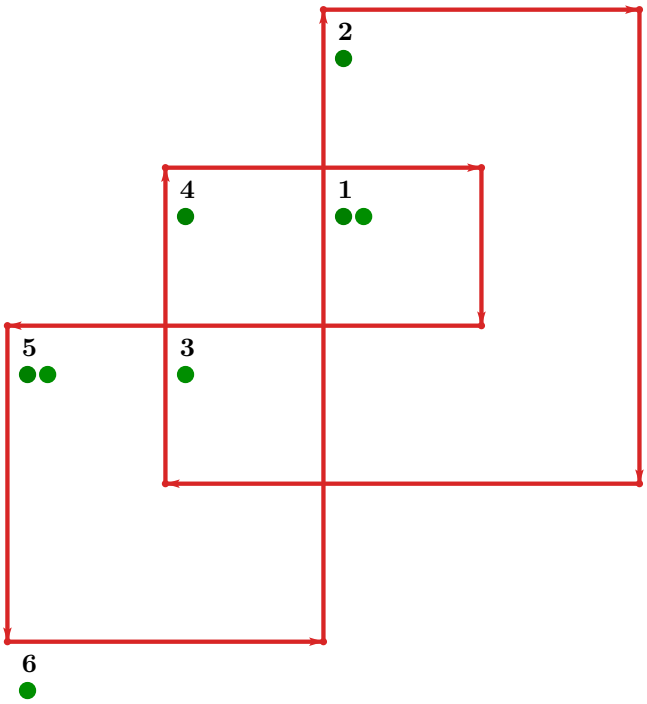

Figure 11: Snappy loop plot.

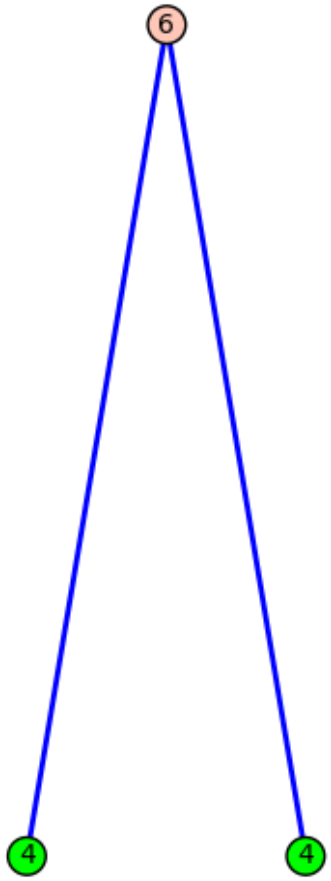

Figure 12: Minimal join semilattice of pinning sets.

Input PD code or string to snappy (use to reproduce the drawing):

5_1

Optimal pinning sets:

0

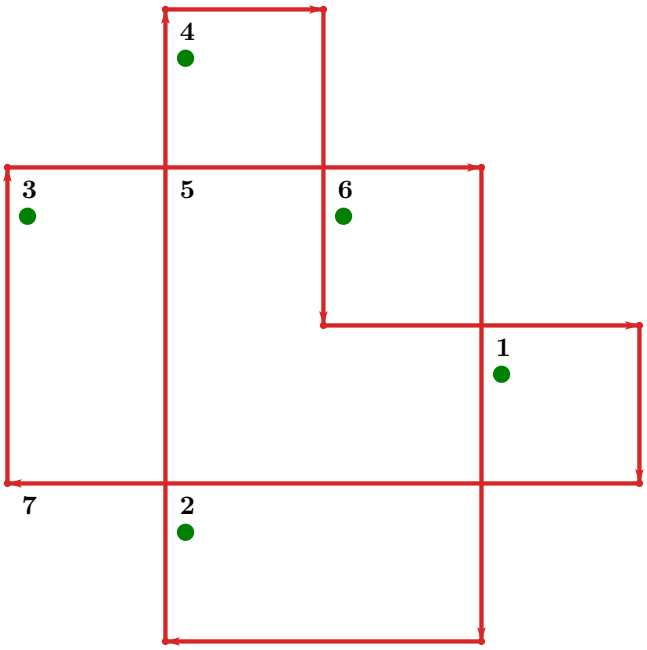

Figure 13: Snappy loop plot.

A) $\{6, 4, 1, 2, 3\}$

Number of minimal pinning sets: 1
Number of total pinning sets: 4
Pinning number: 5

Figure 14: Minimal join semilattice of pinning sets.

Input PD code or string to snappy (use to reproduce the drawing):

9_24

Optimal pinning sets:

A) ● $\{10, 3, 5, 8, 1\}$

B) ● $\{10, 3, 6, 8, 1\}$

Number of minimal pinning sets: 2

Number of total pinning sets: 96

Pinning number: 5

0

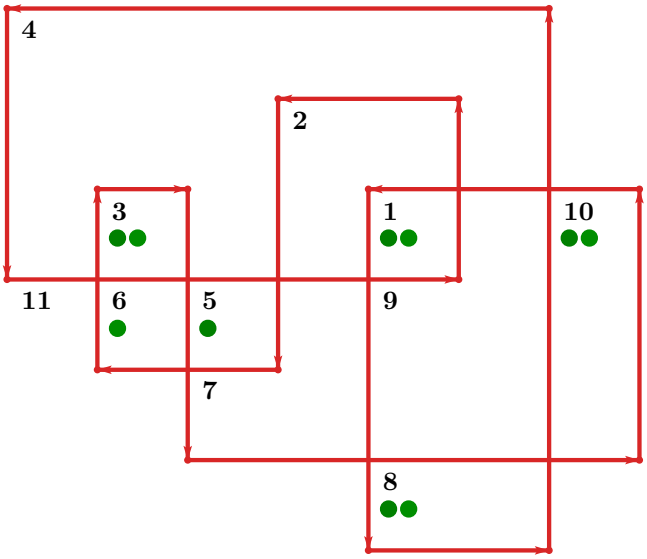

Figure 15: Snappy loop plot.

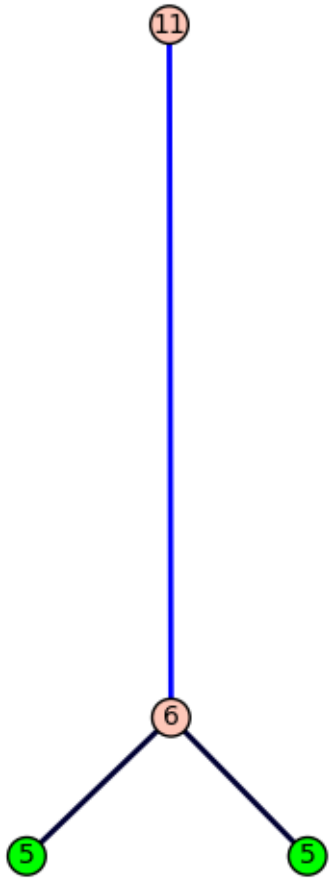

Figure 16: Minimal join semilattice of pinning sets.