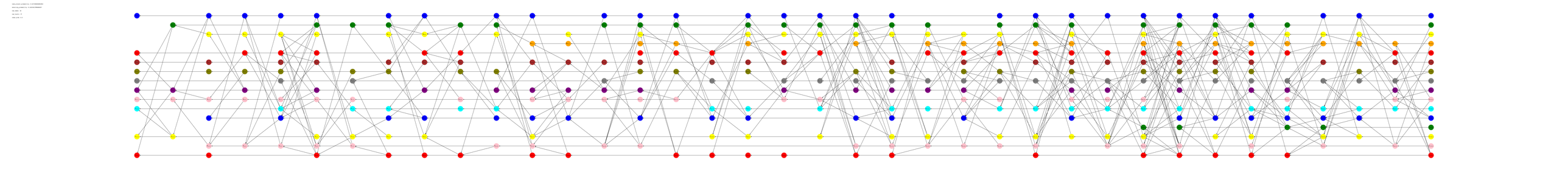

A

1

,

1

,

3

C

1

,

1

,

3

F

1

,

1

,

2

G

1

,

1

,

1

H

1

,

1

,

1 I1, 1, 3 J1, 1, 4 K1, 1, 1 L1, 1, 2 P1, 1, 1
C

2

,

2

,

3

G

2

,

2

,

1

H

2

,

2

,

1

O

2

,

1

,

4

A

3

,

2

,

3

G

3

,

3

,

1

E

3

,

1

,

3

G

3

,

3

,

1

J

3

,

2

,

4

K

3

,

2

,

1

N

3

,

1

,

1

P

3

,

2

,

1

G

4

,

4

,

1

G

4

,

4

,

1

H

4

,

3

,

1

J

4

,

3

,

4

L

4

,

2

,

2

N

4

,

2

,

1

P

4

,

3

,

1

G

5

,

5

,

1

E

5

,

2

,

3

F

5

,

2

,

2

G

5

,

5

,

1 I5, 2, 3 J5, 4, 4 K5, 3, 1 L5, 3, 2 N5, 3, 1 P5, 4, 1
A

6

,

3

,

3

G

6

,

6

,

1

C

6

,

3

,

3

G

6

,

6

,

1

H

6

,

4

,

1

K

6

,

4

,

1

L

6

,

4

,

2

N

6

,

4

,

1

O

6

,

2

,

4

P

6

,

5

,

1

G

7

,

7

,

1

C

7

,

4

,

3

F

7

,

3

,

2

G

7

,

7

,

1 I7, 3, 3 J7, 5, 4 O7, 3, 4
A

8

,

4

,

3

C

8

,

5

,

3

E

8

,

3

,

3

F

8

,

4

,

2

J

8

,

6

,

4

K

8

,

5

,

1

N

8

,

5

,

1

O

8

,

4

,

4

P

8

,

6

,

1

A

9

,

5

,

3

C

9

,

6

,

3

E

9

,

4

,

3

H

9

,

5

,

1

K

9

,

6

,

1

L

9

,

5

,

2

N

9

,

6

,

1

P

9

,

7

,

1

A

1

0

,

6

,

3

F

1

0

,

5

,

2

G

1

0

,

8

,

1

J

1

0

,

7

,

4

K

1

0

,

7

,

1

L

1

0

,

6

,

2

O

1

0

,

5

,

4

G

1

1

,

8

,

1

E

1

1

,

5

,

3

F

1

1

,

6

,

2

H

1

1

,

6

,

1

J

1

1

,

8

,

4

N

1

1

,

7

,

1

O

1

1

,

6

,

4

P

1

1

,

8

,

1

A

1

2

,

7

,

3

G

1

2

,

9

,

1

C

1

2

,

7

,

3

E

1

2

,

6

,

3

G

1

2

,

9

,

1

H

1

2

,

7

,

1

K

1

2

,

8

,

1

M

1

2

,

1

,

1

P

1

2

,

9

,

1

A

1

3

,

8

,

3

E

1

3

,

7

,

3

G

1

3

,

1

0

,

1

H

1

3

,

8

,

1

K

1

3

,

9

,

1

M

1

3

,

2

,

1

N

1

3

,

8

,

1

G

1

4

,

1

0

,

1

G

1

4

,

1

1

,

1

H

1

4

,

9

,

1 I14, 4, 3 K14, 10, 1 O14, 7, 4 P14, 10, 1
G

1

5

,

1

1

,

1

E

1

5

,

8

,

3

G

1

5

,

1

2

,

1

H

1

5

,

1

0

,

1

J

1

5

,

9

,

4

K

1

5

,

1

1

,

1

L

1

5

,

7

,

2

M

1

5

,

3

,

1

N

1

5

,

9

,

1

O

1

5

,

8

,

4

P

1

5

,

1

1

,

1

A

1

6

,

9

,

3

G

1

6

,

1

3

,

1

J

1

6

,

1

0

,

4

L

1

6

,

8

,

2

M

1

6

,

4

,

1

O

1

6

,

9

,

4

P

1

6

,

1

2

,

1

A

1

7

,

1

0

,

3

C

1

7

,

8

,

3

E

1

7

,

9

,

3

F

1

7

,

7

,

2 I17, 5, 3 K17, 12,

1

L

1

7

,

9

,

2

A

1

8

,

1

1

,

3

C

1

8

,

9

,

3

E

1

8

,

1

0

,

3

F

1

8

,

8

,

2

J

1

8

,

1

1

,

4

K

1

8

,

1

3

,

1

M

1

8

,

5

,

1

N

1

8

,

1

0

,

1

O

1

8

,

1

0

,

4

P

1

8

,

1

3

,

1

A

1

9

,

1

2

,

3

G

1

9

,

1

4

,

1

H

1

9

,

1

1

,

1 I19, 6, 3 K19, 14, 1 L19, 10, 2 N19, 11, 1 O19, 11, 4 P19, 14, 1
C

2

0

,

1

0

,

3

F

2

0

,

9

,

2

G

2

0

,

1

5

,

1 I20, 7, 3 L20, 11, 2 N20, 12, 1 O20, 12, 4 P20, 15, 1
A

2

1

,

1

3

,

3

G

2

1

,

1

2

,

1

E

2

1

,

1

1

,

3

H

2

1

,

1

2

,

1 I21, 8, 3

J

2

1

,

1

2

,

4

M

2

1

,

6

,

1

N

2

1

,

1

3

,

1

O

2

1

,

1

3

,

4

P

2

1

,

1

6

,

1

A

2

2

,

1

4

,

3

G

2

2

,

1

3

,

1

C

2

2

,

1

1

,

3

E

2

2

,

1

2

,

3

F

2

2

,

1

0

,

2

H

2

2

,

1

3

,

1 I22, 9, 3

J

2

2

,

1

3

,

4

K

2

2

,

1

5

,

1

N

2

2

,

1

4

,

1

O

2

2

,

1

4

,

4

P

2

2

,

1

7

,

1

G

2

3

,

1

4

,

1

C

2

3

,

1

2

,

3

F

2

3

,

1

1

,

2

H

2

3

,

1

4

,

1 I23, 10, 3 L23, 12, 2 M23, 7, 1 N23, 15, 1 O23, 15, 4
G

2

4

,

1

5

,

1

E

2

4

,

1

3

,

3

G

2

4

,

1

6

,

1

H

2

4

,

1

5

,

1 I24, 11, 3 J24, 14, 4 K24, 16, 1 L24, 13, 2 M24, 8, 1 N24, 16, 1
G

2

5

,

1

6

,

1

C

2

5

,

1

3

,

3

F

2

5

,

1

2

,

2

G

2

5

,

1

7

,

1 I25, 12, 3 J25, 15, 4 L25, 14, 2 M25, 9, 1 N25, 17, 1 O25, 16, 4 P25, 18, 1
A

2

6

,

1

5

,

3

G

2

6

,

1

7

,

1

C

2

6

,

1

4

,

3

F

2

6

,

1

3

,

2 I26, 13, 3 K26, 17, 1 L26, 15, 2 M26, 10, 1 O26, 17, 4 P26, 19, 1

C

2

7

,

1

5

,

3

E

2

7

,

1

4

,

3

F

2

7

,

1

4

,

2

G

2

7

,

1

8

,

1

H

2

7

,

1

6

,

1 I27, 14, 3 J27, 16, 4 K27, 18, 1 L27, 16, 2 M27, 11, 1 N27, 18, 1 O27, 18, 4 P27, 20, 1
G

2

8

,

1

8

,

1

C

2

8

,

1

6

,

3

F

2

8

,

1

5

,

2

G

2

8

,

1

9

,

1

H

2

8

,

1

7

,

1 I28, 15, 3 K28, 19, 1 L28, 17, 2 P28, 21, 1
A

2

9

,

1

6

,

3

G

2

9

,

1

9

,

1

C

2

9

,

1

7

,

3

D

2

9

,

1

,

5

F

2

9

,

1

6

,

2

G

2

9

,

2

0

,

1 I29, 16, 3 J29, 17, 4 K29, 20, 1 L29, 18, 2 M29, 12, 1 N29, 19, 1 O29, 19, 4 P29, 22, 1
A

3

0

,

1

7

,

3

G

3

0

,

2

0

,

1

D

3

0

,

2

,

5

E

3

0

,

1

5

,

3

F

3

0

,

1

7

,

2

H

3

0

,

1

8

,

1 I30, 17, 3 J30, 18, 4 K30, 21, 1 L30, 19, 2 M30, 13, 1 O30, 20, 4 P30, 23, 1
A

3

1

,

1

8

,

3

C

3

1

,

1

8

,

3

E

3

1

,

1

6

,

3 I31, 18, 3 J31, 19, 4 K31, 22, 1 L31, 20, 2 M31, 14, 1 N31, 20, 1 O31, 21, 4 P31, 24, 1

A

3

2

,

1

9

,

3

G

3

2

,

2

1

,

1

C

3

2

,

1

9

,

3

E

3

2

,

1

7

,

3

F

3

2

,

1

8

,

2

H

3

2

,

1

9

,

1 I32, 19, 3 J32, 20, 4 K32, 23, 1 L32, 21, 2 M32, 15, 1 O32, 22, 4 P32, 25, 1
A

3

3

,

2

0

,

3

D

3

3

,

3

,

5

E

3

3

,

1

8

,

3

F

3

3

,

1

9

,

2

G

3

3

,

2

1

,

1

H

3

3

,

2

0

,

1 I33, 20, 3 L33, 22, 2 M33, 16, 1 N33, 21, 1 O33, 23, 4
G

3

4

,

2

2

,

1

C

3

4

,

2

0

,

3

D

3

4

,

4

,

5

E

3

4

,

1

9

,

3

F

3

4

,

2

0

,

2 I34, 21, 3 K34, 24, 1 M34, 17, 1 N34, 22, 1 P34, 26, 1

C

3

5

,

2

1

,

3

E

3

5

,

2

0

,

3

F

3

5

,

2

1

,

2 I35, 22, 3 J35, 21, 4 M35, 18, 1 N35, 23, 1 P35, 27, 1

G

3

6

,

2

3

,

1

F

3

6

,

2

2

,

2

G

3

6

,

2

2

,

1

H

3

6

,

2

1

,

1 I36, 23, 3 K36, 25, 1 L36, 23, 2 M36, 19, 1

A

3

7

,

2

1

,

3

G

3

7

,

2

4

,

1

C

3

7

,

2

2

,

3

D

3

7

,

5

,

5

E

3

7

,

2

1

,

3

F

3

7

,

2

3

,

2

G

3

7

,

2

3

,

1

H

3

7

,

2

2

,

1 I37, 24, 3 J37, 22, 4 K37, 26, 1 L37, 24, 2 M37, 20, 1 N37, 24, 1 O37, 24, 4 P37, 28, 1

node_present_probability: 0.6172404656852052
observing_probability: 0.24251617999404457
num_nodes: 16
num_levels: 37
cheat_prob: 0.3