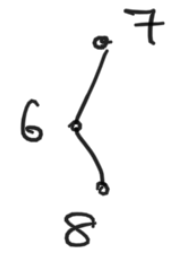
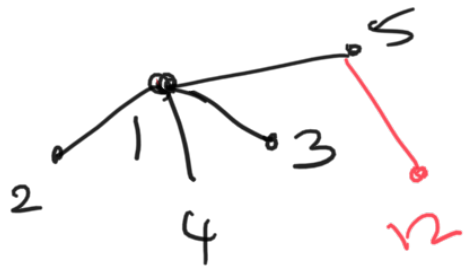
Unit test details

Test Forest methods

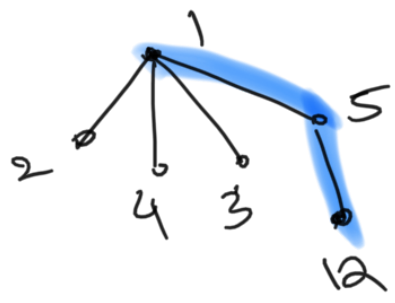
Initial forest

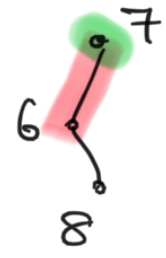


Testing forest addition



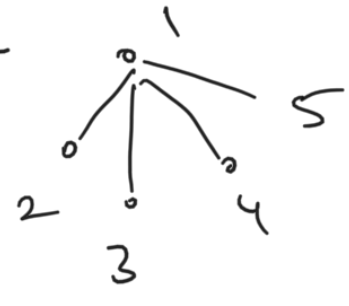
Testing path to root

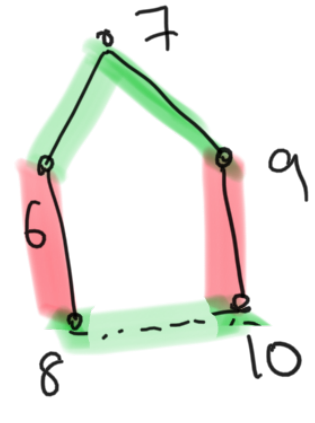




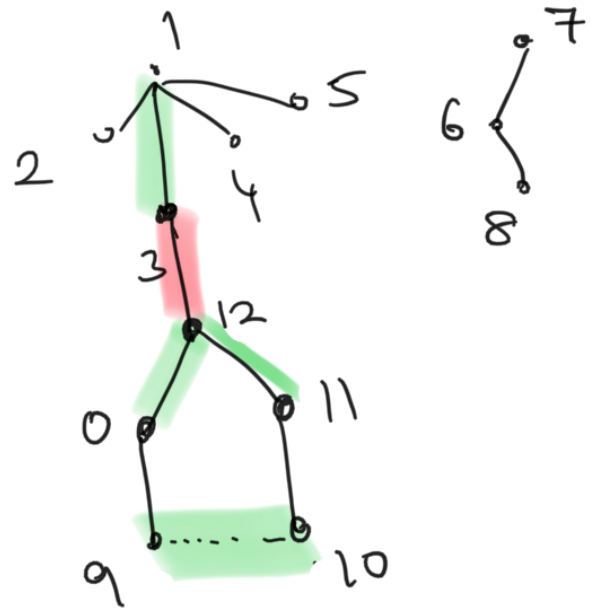
Testing bloom

without stem



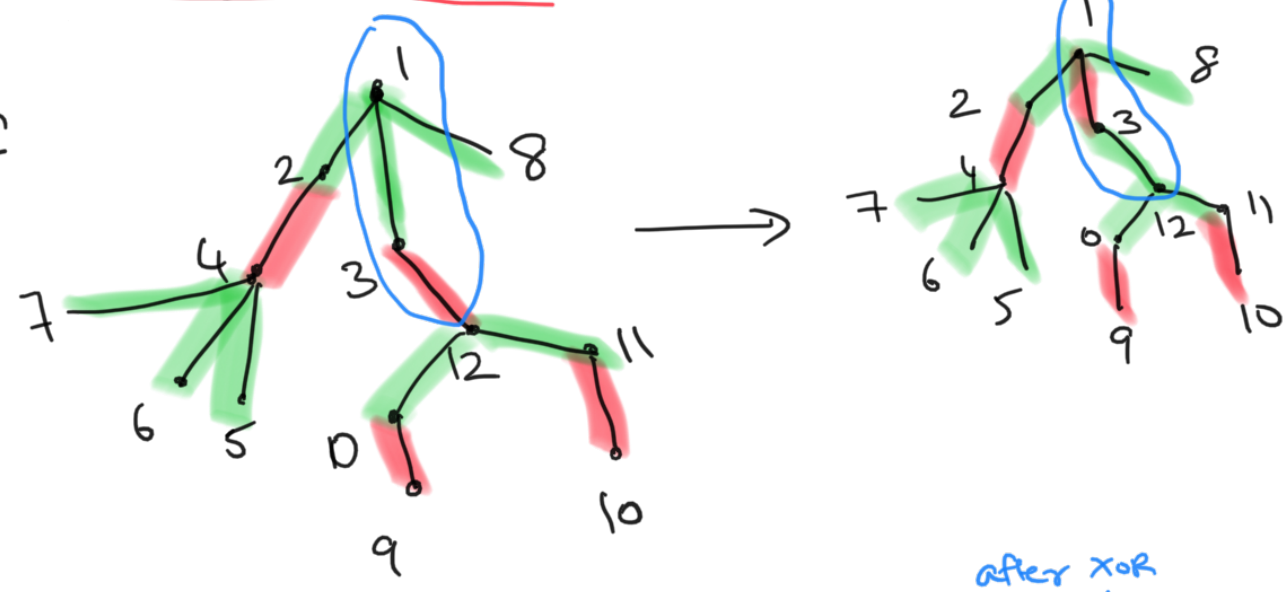


with stem

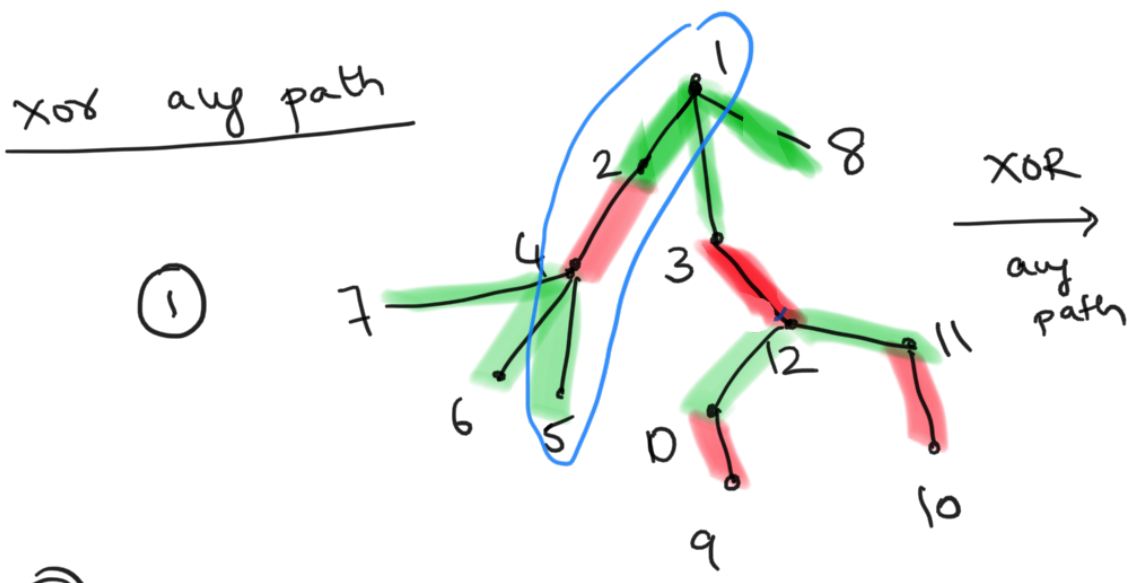


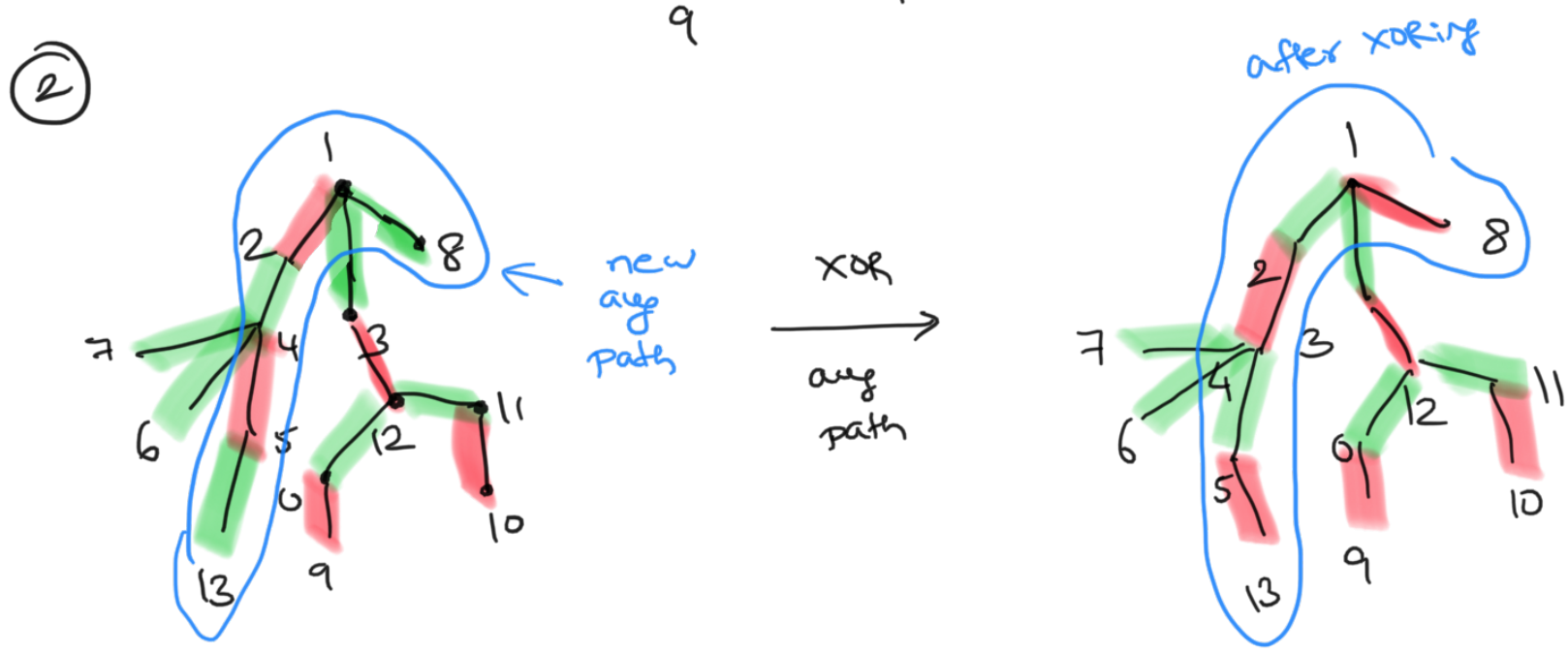
Test matching methods

xor even path



xor any path





Test Graph creation

Adjacency matrix

matrix

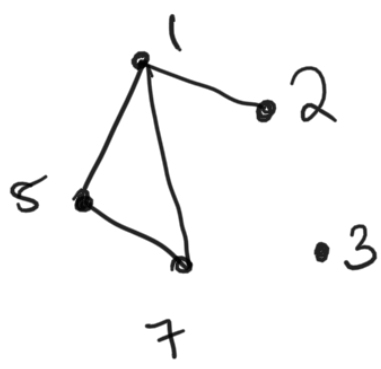
$$\begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix}$$

vertices

[1, 2, 3]

should raise

assertion error



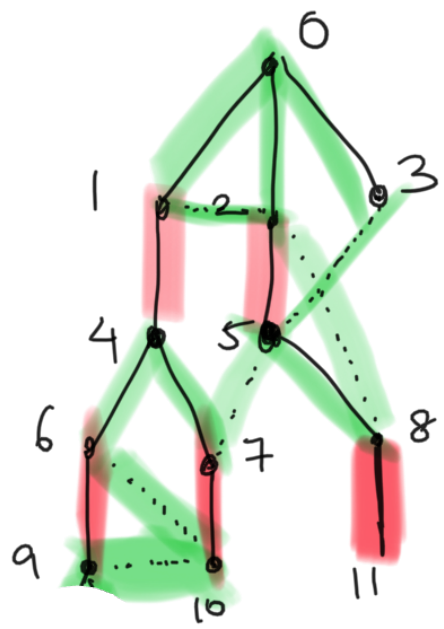
1 5 7 2 3

	1	5	7	2	3
1	0	1	1	1	0
5	1	0	1	0	0
7	1	1	0	0	0
2	1	0	0	0	0
3	0	0	0	0	0

→

```
{
  1 : [5, 7, 2]
  5 : [1, 7]
  7 : [1, 5]
  2 : [1]
  3 : []
}
```

Quotienting (mod blooms)



adj dict

0: [1, 2, 3]

1: [0, 2, 4]

2: [0, 1, 5, 8]

3: [0, 5]

4: [1, 6, 7]

5: [2, 3, 7, 8]

6: [4, 9, 10]

7: [4, 5, 10]

8: [2, 5, 11]

9: [6, 10]

10: [6, 7, 9]

11: [8]

matching

1: 4

2: 5

4: 1

5: 2

6: 9

9: 6

7: 10

10: 7

8: 11

11: 8

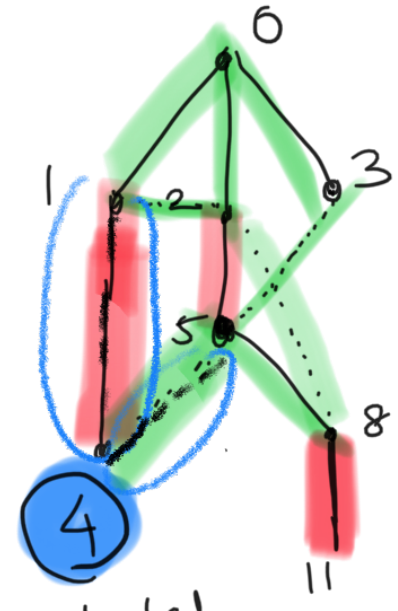
root: None

blossom vertices

4, 6, 9, 10, 7

least_common_ancestor

4



Quotiented blossom

Secbn

1—4

↕

1—4

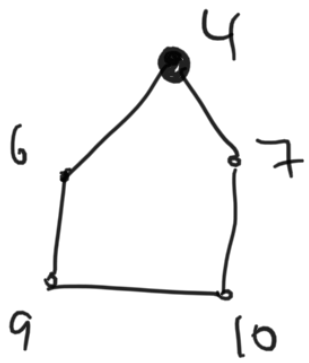
5—4

↕

5—7

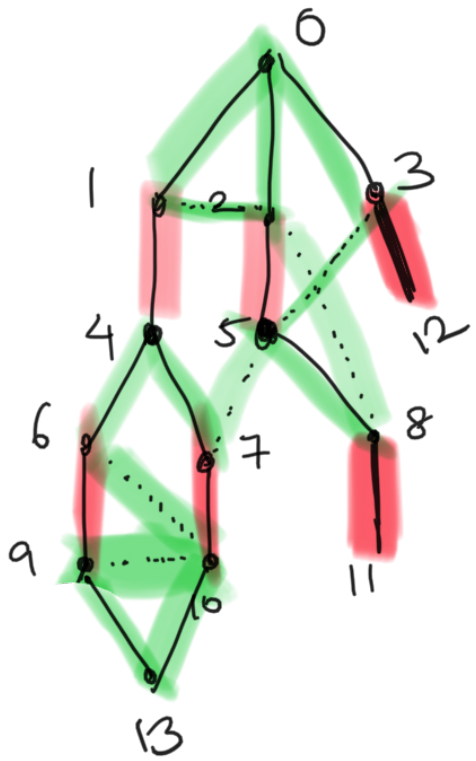
Paths

finding even path



find even path from i to 4 for i in [4, 6, 7, 9, 10]

finding any path

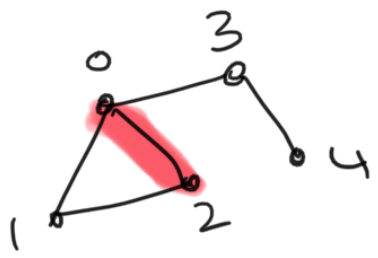


Test case

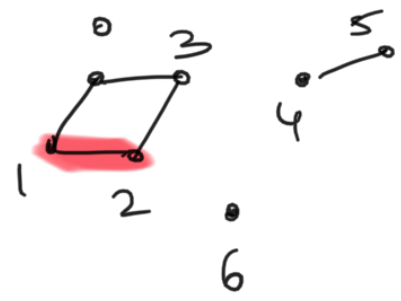
maximal matching, maximum matching

(a)

(b)



(c)



(d)