

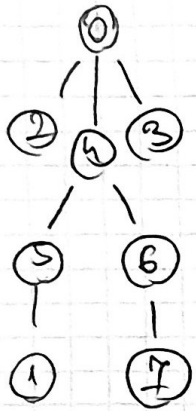
adj. matrix

0 [1 2 4]
 1 [3]
 2 [0]
 3 [1, 7]
 4 [0]
 5 [5]
 6 [7]
 7 [6, 3]
 8 [7]
 9 [5]
 10 []

calls	x	initial queue	connected comp	visited[x]	after queue
bfs(0)	0	[0]	{0}	true	[1, 2, 4], 11
	1	[1, 2, 4]	{0, 1}	true	[2, 4, 3], 0 - visited
	2	[2, 4, 3]	{0, 1, 2}	true	[4, 3], 0 - visited
	4	[4, 3]	{0, 1, 2, 4}	true	[3], 0 - visited
	3	[3]	{0, 1, 2, 4, 3}	true	[7], 1 - visited
	7	[7]	{0, 1, 2, 4, 3, 7}	true	[6, 8], 3 - visited
	6	[6, 8]	{0, 1, 2, 4, 3, 7, 6}	true	[8], 7 - visited
	8	[8]	{0, 1, 2, 4, 3, 7, 6, 8}	true	[], 7 - visited
bfs(5)	5	[5]	{5}	true	[8]
	9	[9]	{5, 9}	true	[] - 5 - visited
bfs(10)	10	[10]	{10}	true	[]

The connected components are {0, 1, 2, 4, 3, 7, 6, 8}, {5, 9}, {10}

Graph



0 - [2, 4, 3]
 1 [5]
 2 [0]
 3 [0]
 4 [0, 5, 6]
 5 [4, 1]
 6 [4, 7]
 7 [6]

calls	x	initial queue	connected comp.	visited [x]	after queue
bfo(0)	0	[0]	{0}	true	[2, 4, 3]
	2	[2, 4, 3]	{0, 2}	true	[4, 3] - 0 visited
	4	[4, 3]	{0, 2, 4}	true	[3, 5, 6] 0 visited
	3	[3, 5, 6]	{0, 2, 4, 3}	true	[5, 6] 0 visited
	5	[5, 6]	{0, 2, 4, 3, 5}	true	[6, 1] 4 visited
	6	[6, 1]	{0, 2, 4, 3, 5, 6}	true	[1, 7] 4 visited
	1	[1, 7]	{0, 2, 4, 3, 5, 6, 1}	true	[7] 5 visited
	7	[7]	{0, 2, 4, 3, 5, 6, 1, 7}	true	[] 6 visited
		Connected comp.	{0, 2, 4, 3, 5, 6, 1, 7}		