



<http://algs4.cs.princeton.edu>

1.5 QUICK-UNION DEMO

Quick-union demo



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

Quick-union demo

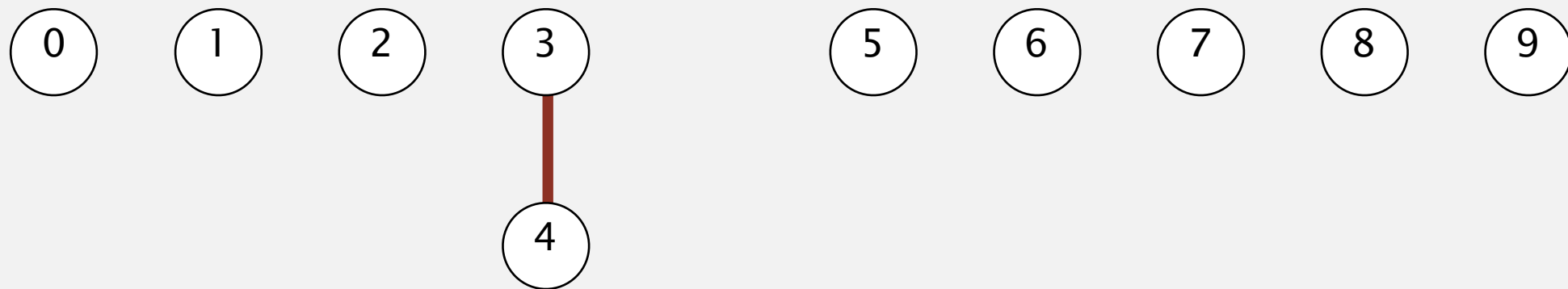
union(4, 3)



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

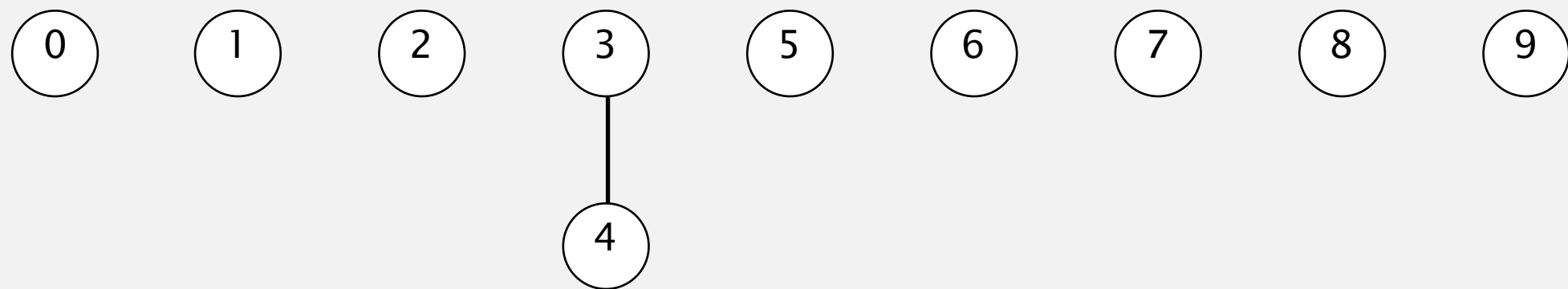
Quick-union demo

union(4, 3)



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

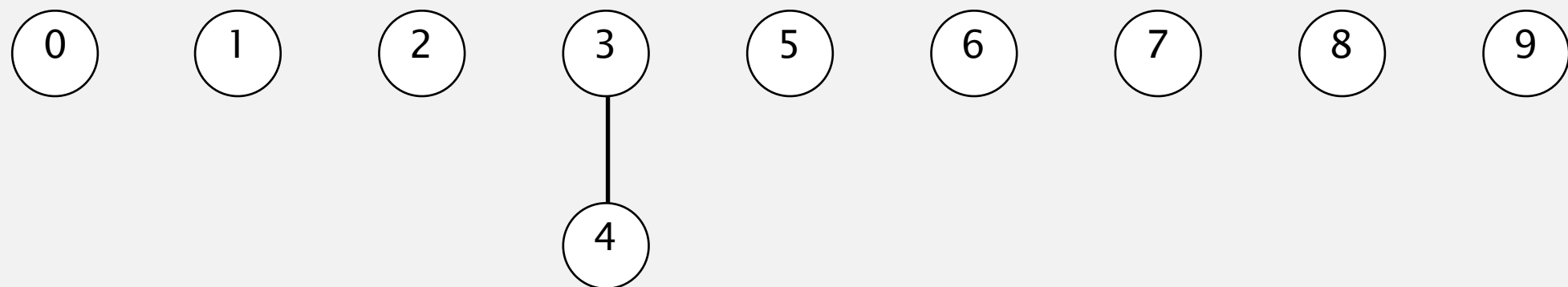
Quick-union demo



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

Quick-union demo

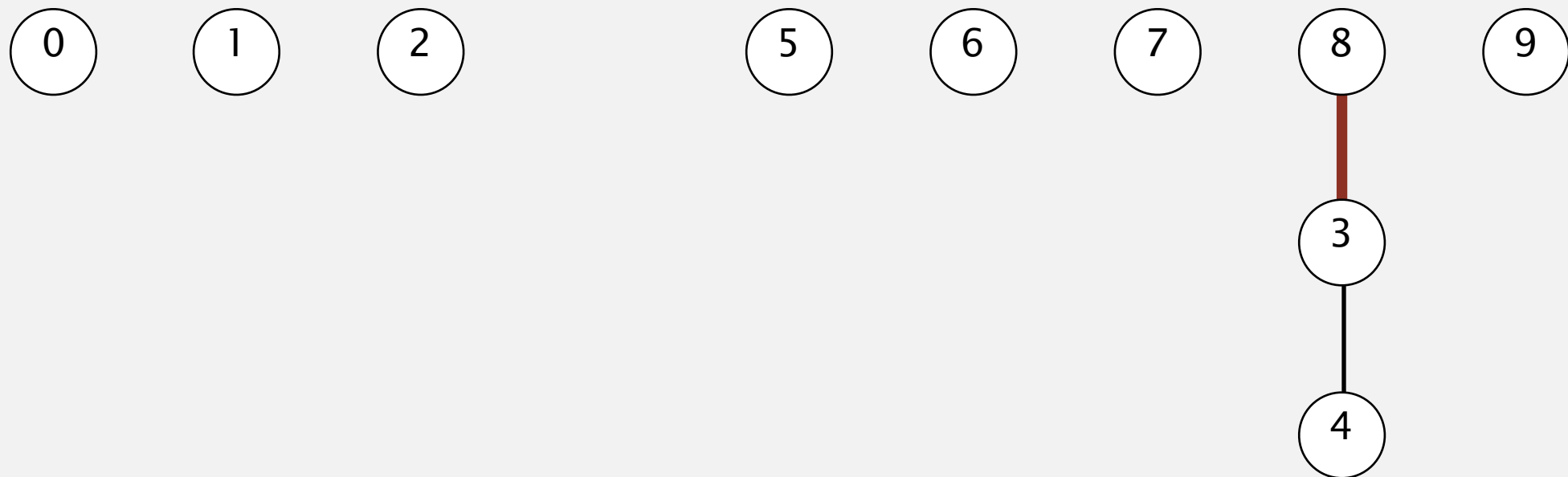
union(3, 8)



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

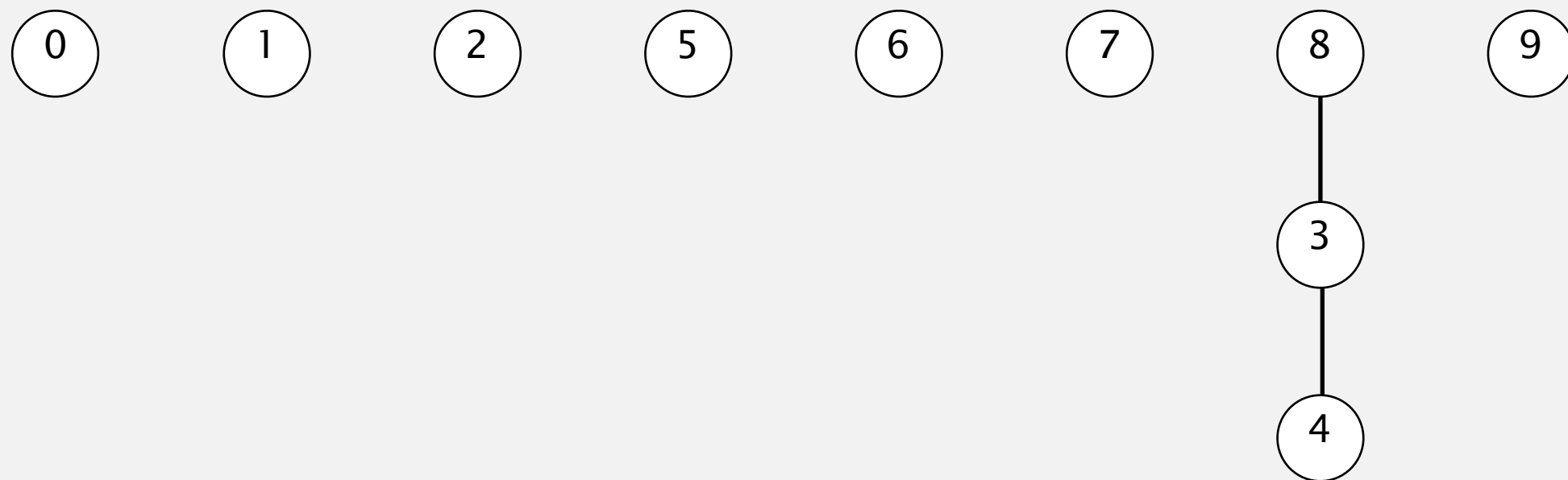
Quick-union demo

union(3, 8)



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

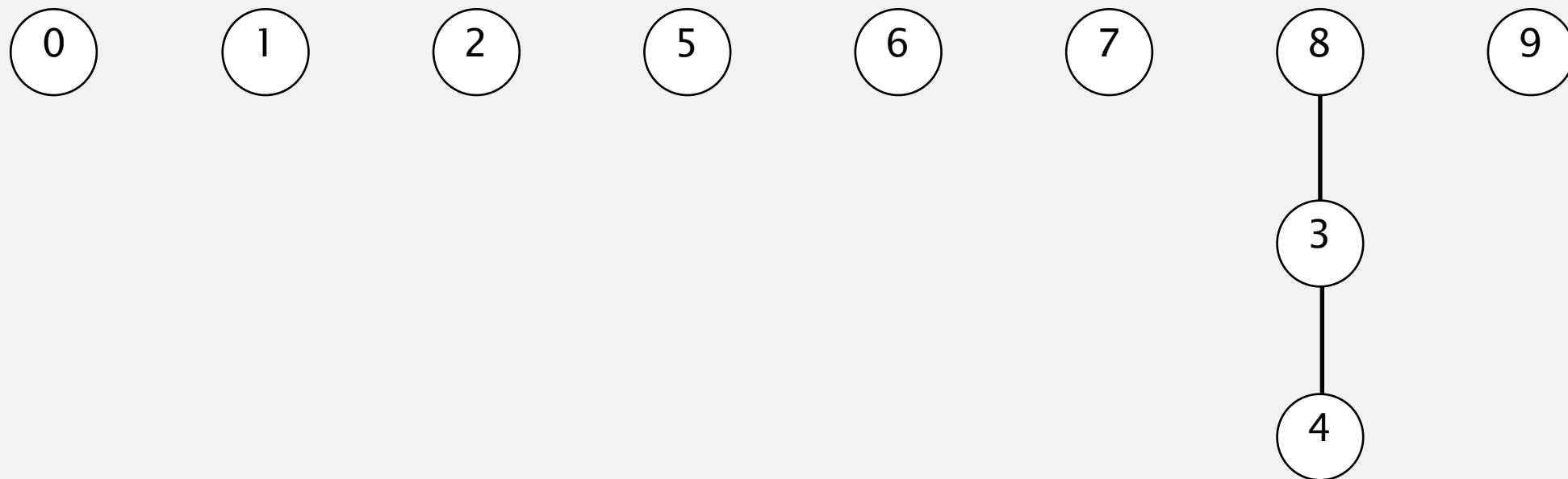
Quick-union demo



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

Quick-union demo

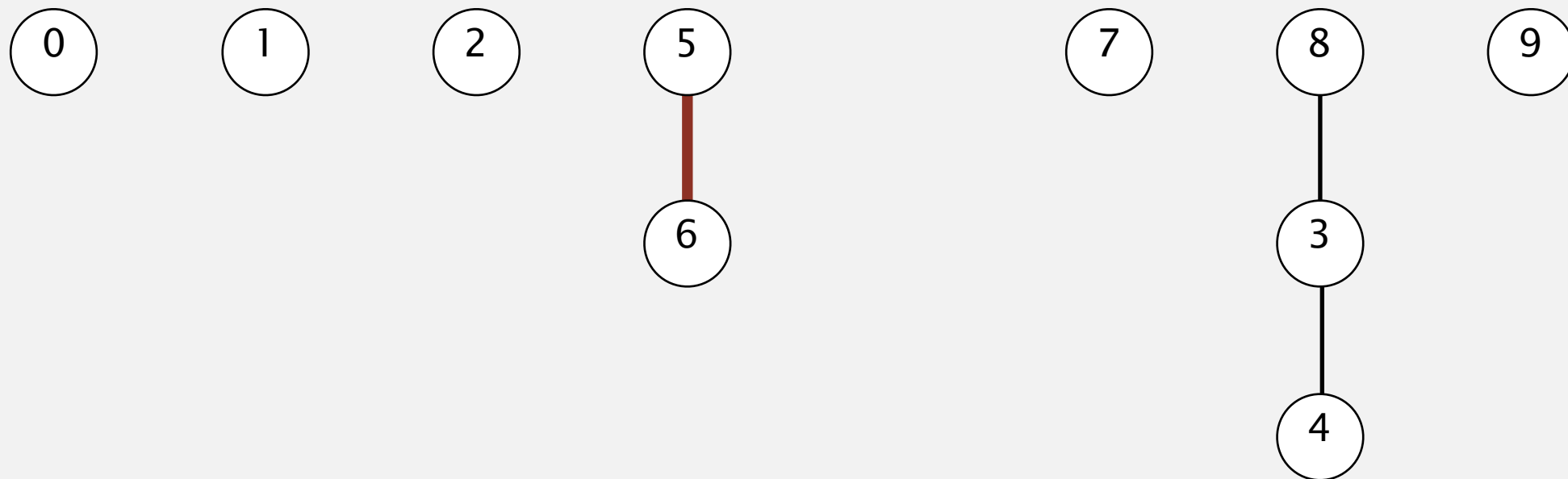
union(6, 5)



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

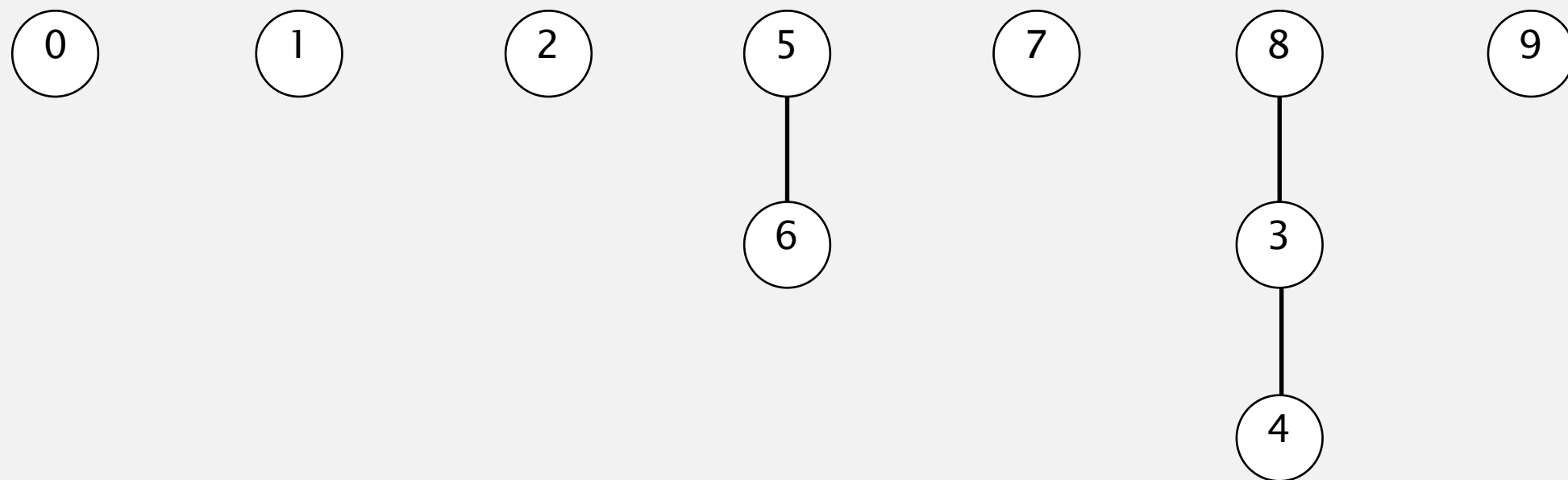
Quick-union demo

union(6, 5)



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

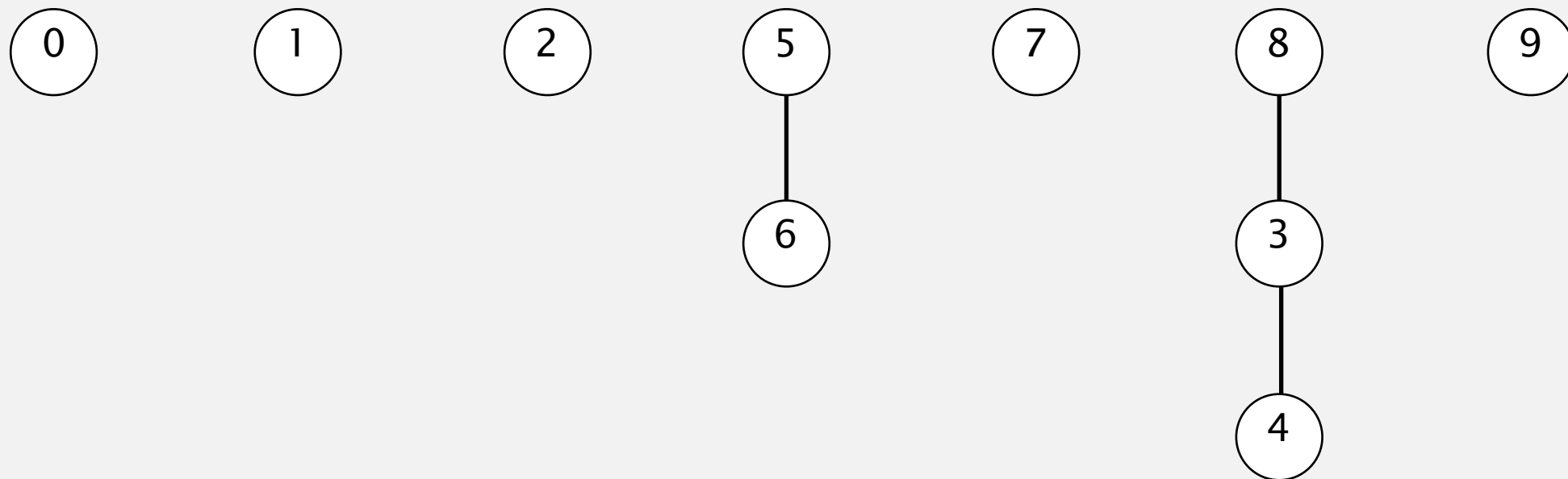
Quick-union demo



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

Quick-union demo

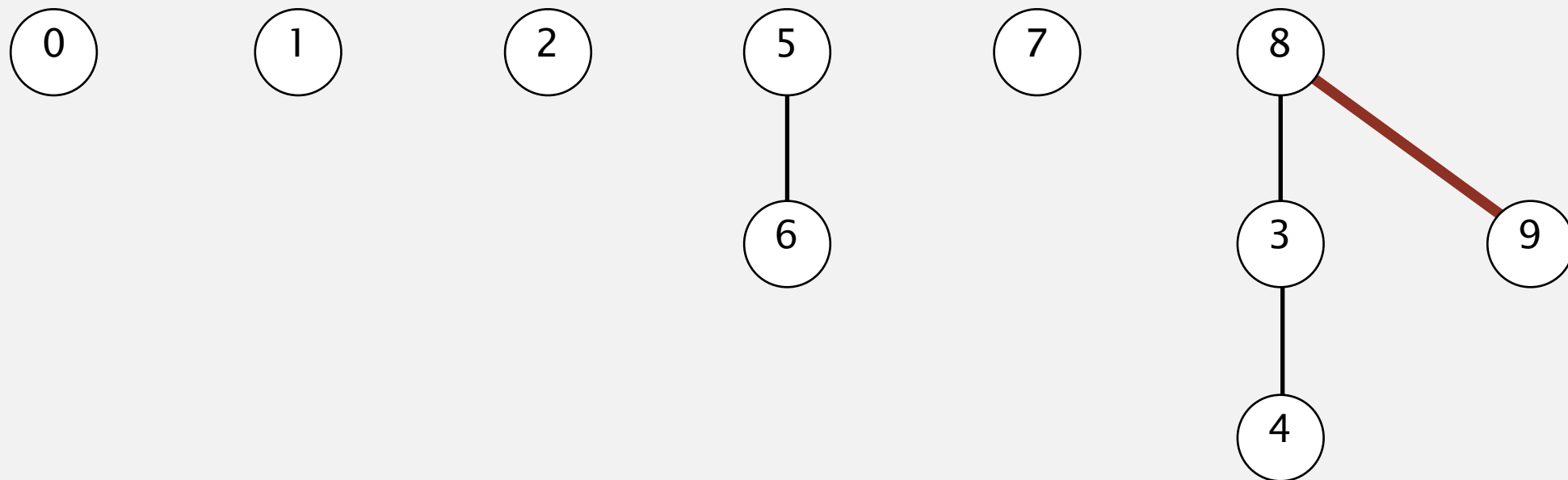
union(9, 4)



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

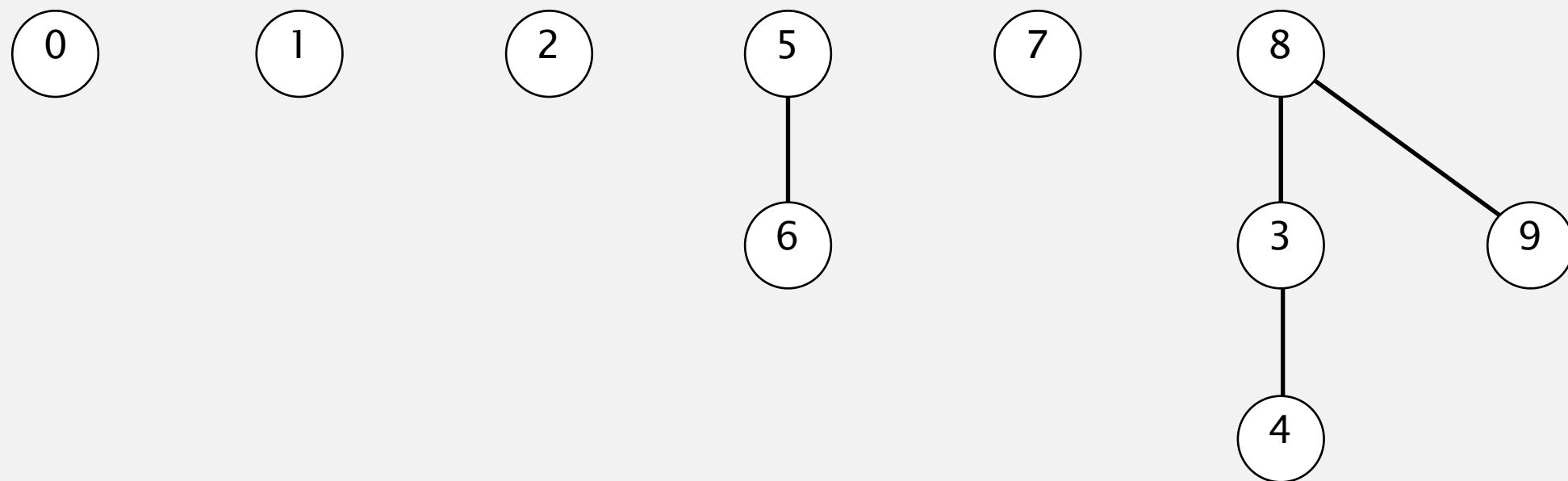
Quick-union demo

union(9, 4)



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

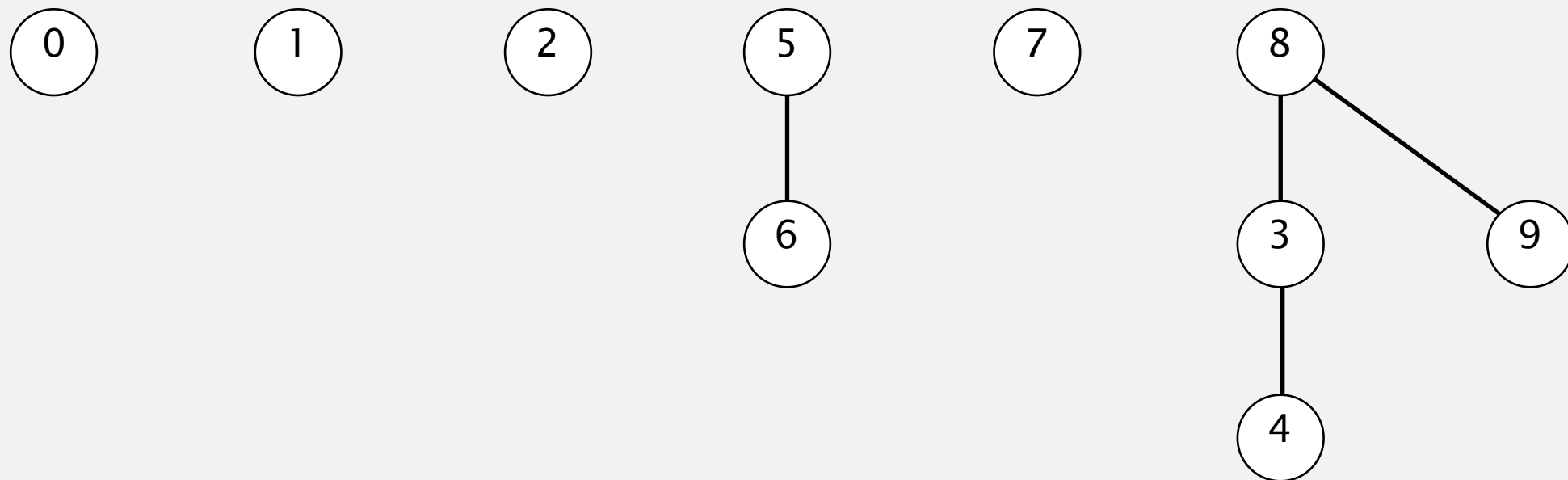
Quick-union demo



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

Quick-union demo

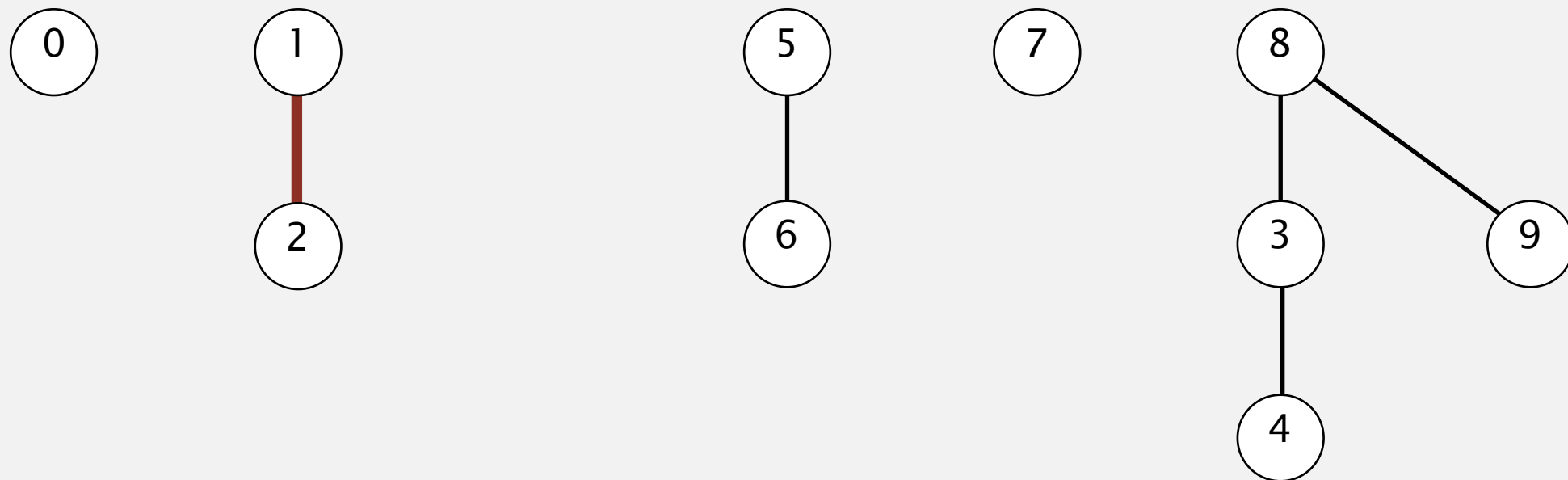
union(2, 1)



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

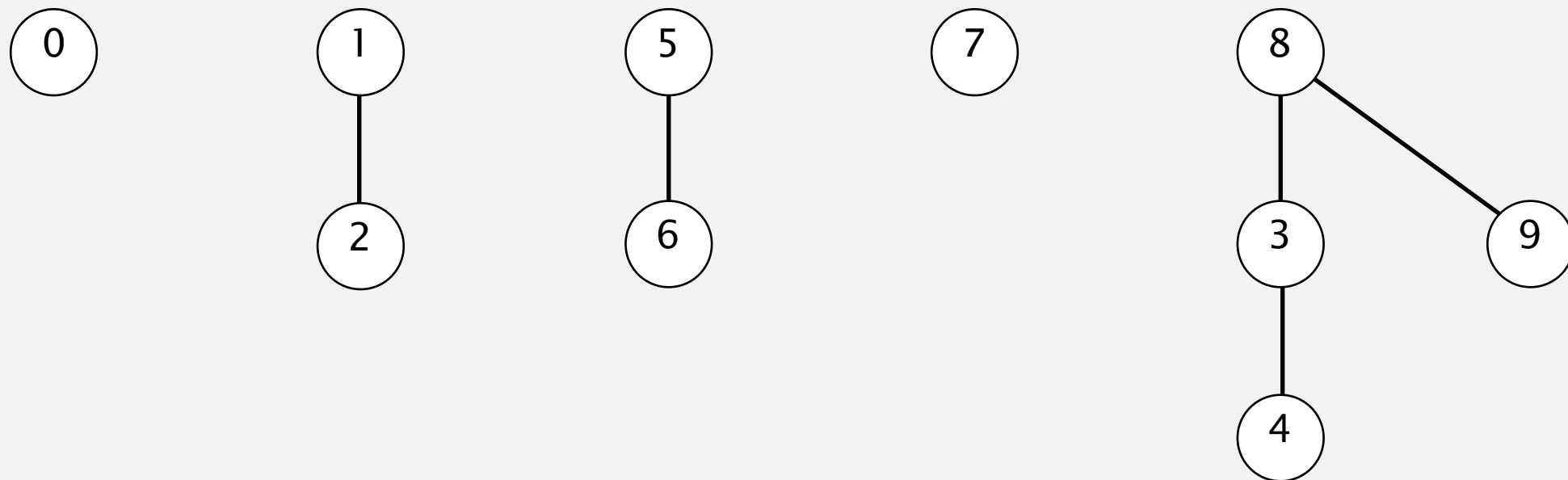
Quick-union demo

union(2, 1)



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

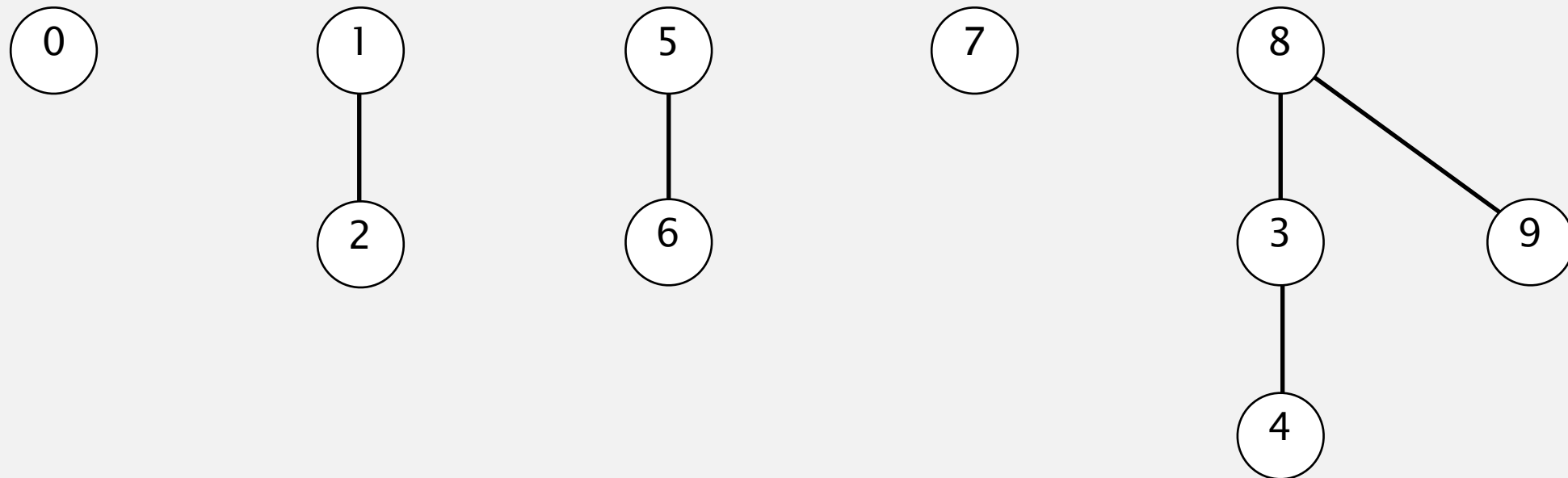
Quick-union demo



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

Quick-union demo

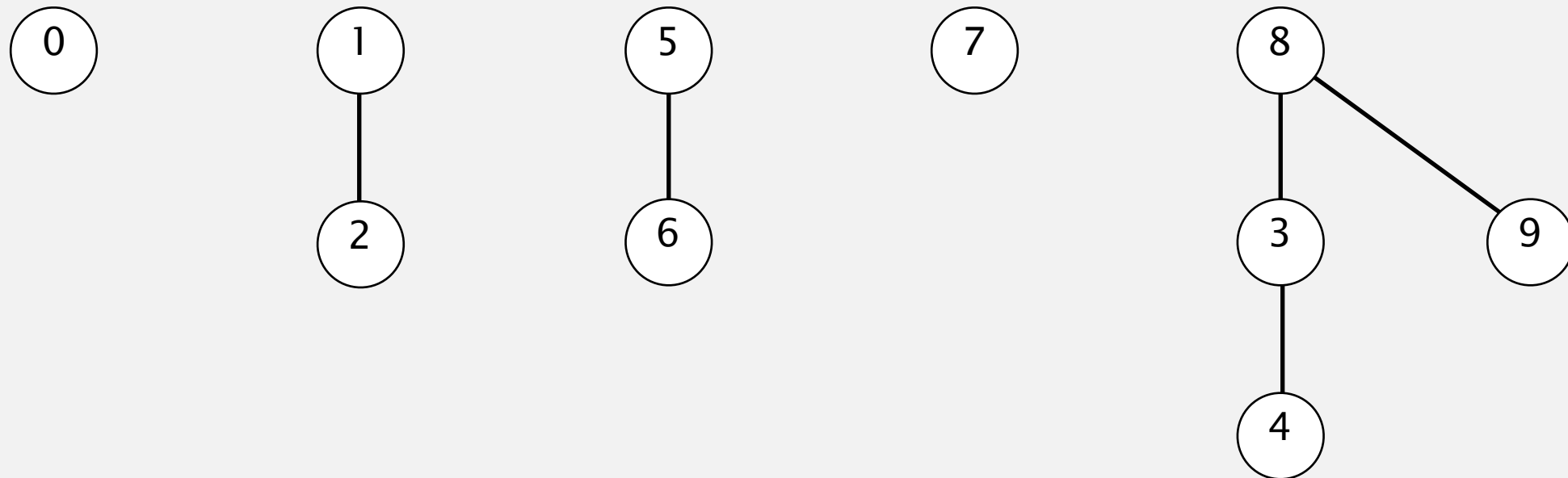
connected(8, 9) ✓



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

Quick-union demo

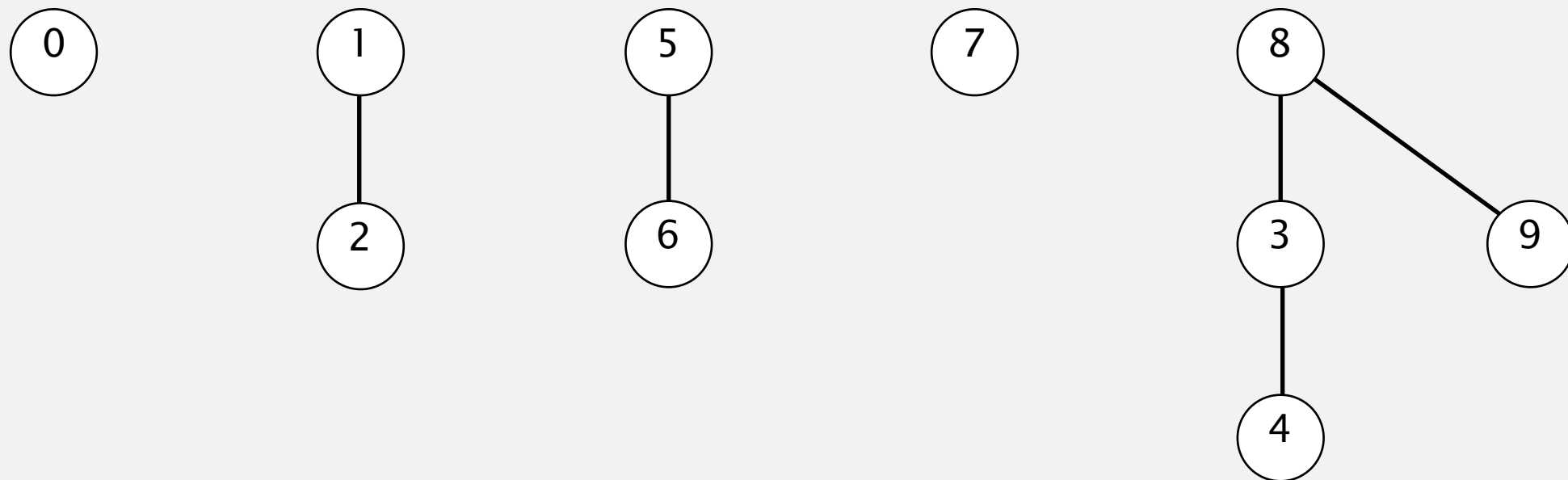
connected(5, 4) **×**



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

Quick-union demo

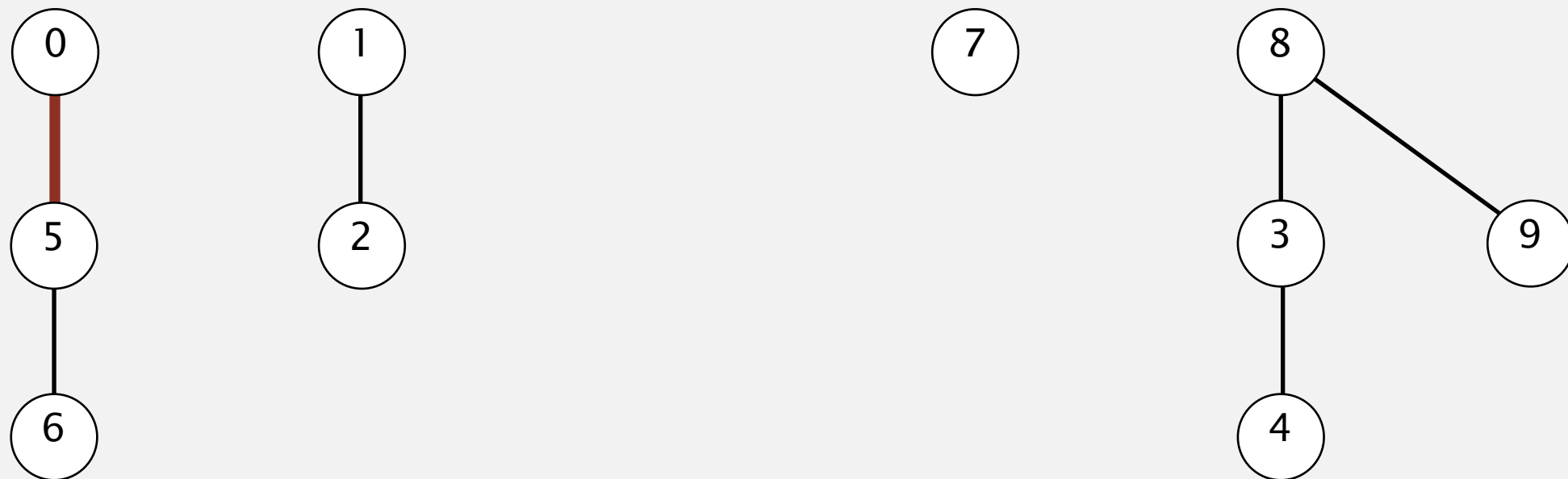
union(5, 0)



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

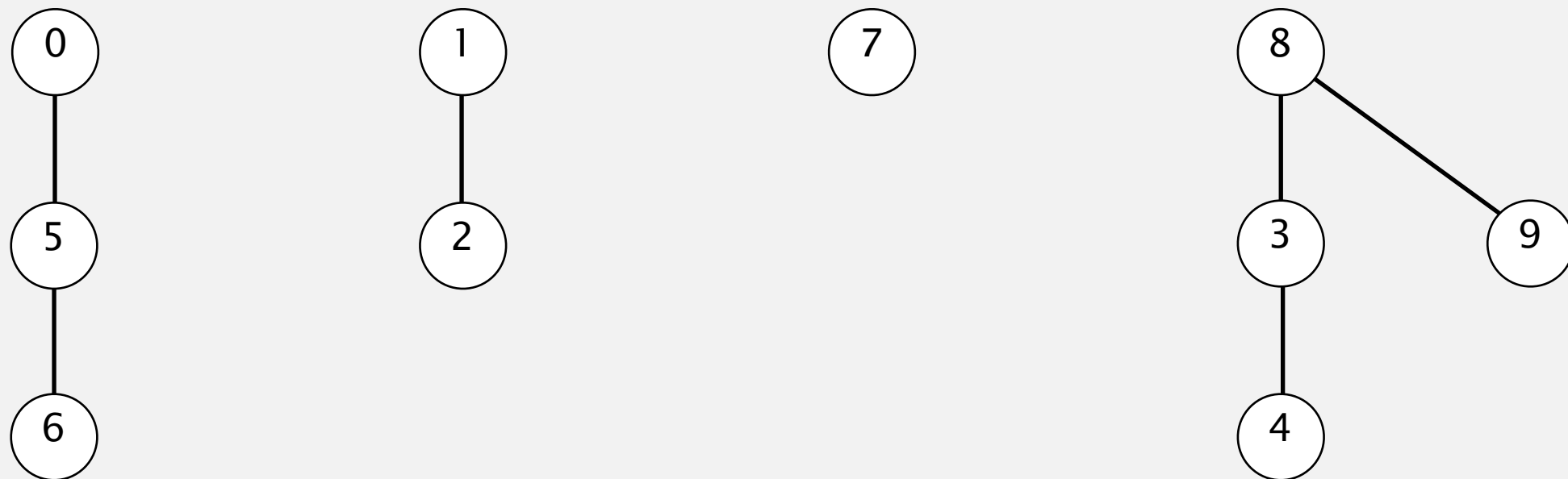
Quick-union demo

union(5, 0)



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

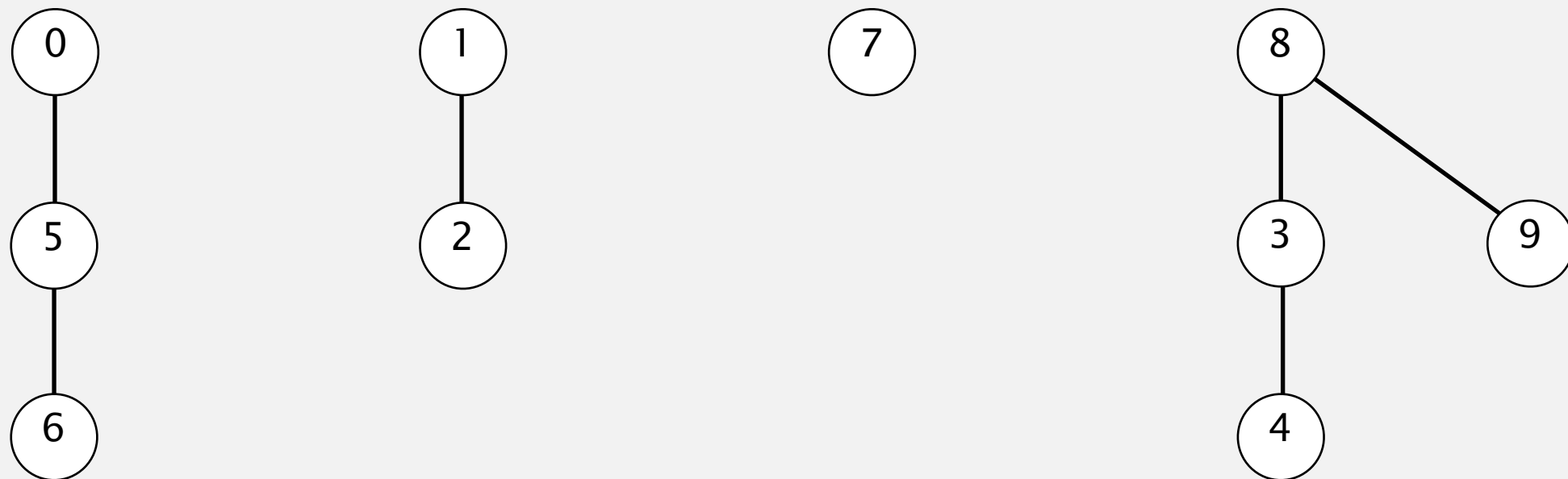
Quick-union demo



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

Quick-union demo

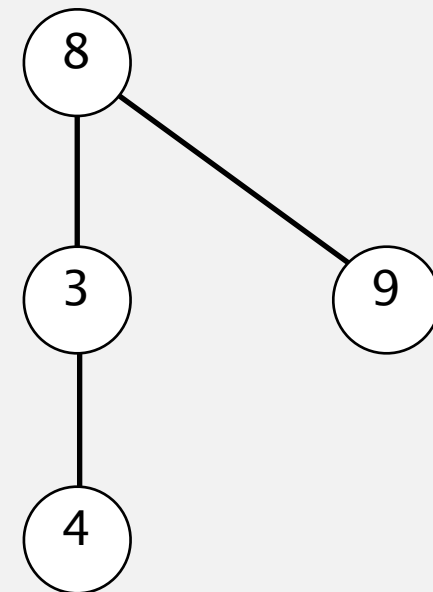
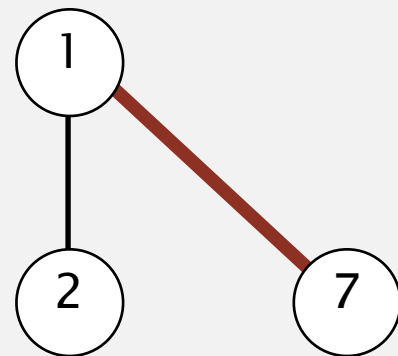
union(7, 2)



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

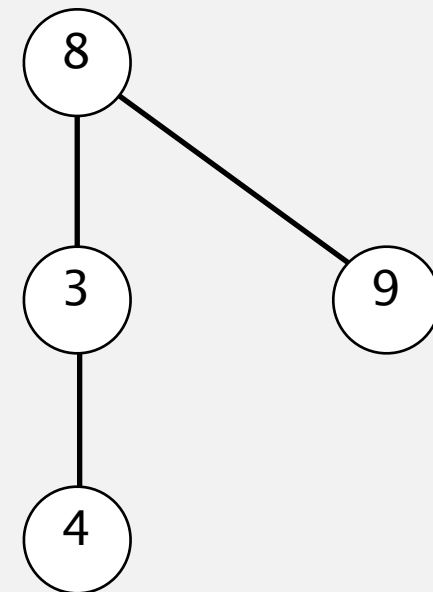
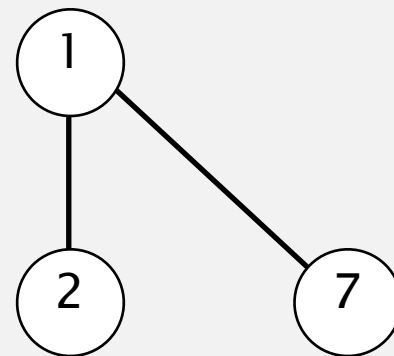
Quick-union demo

union(7, 2)



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

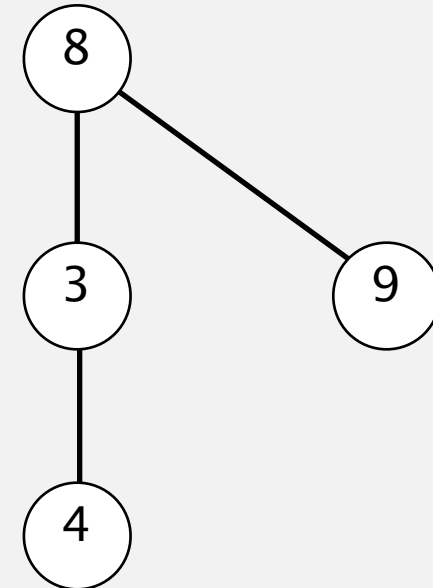
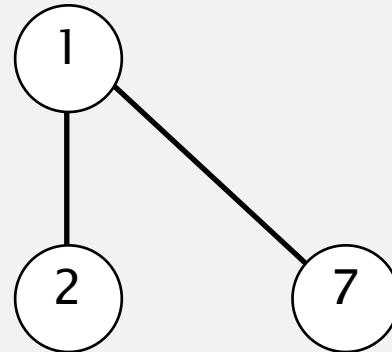
Quick-union demo



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

Quick-union demo

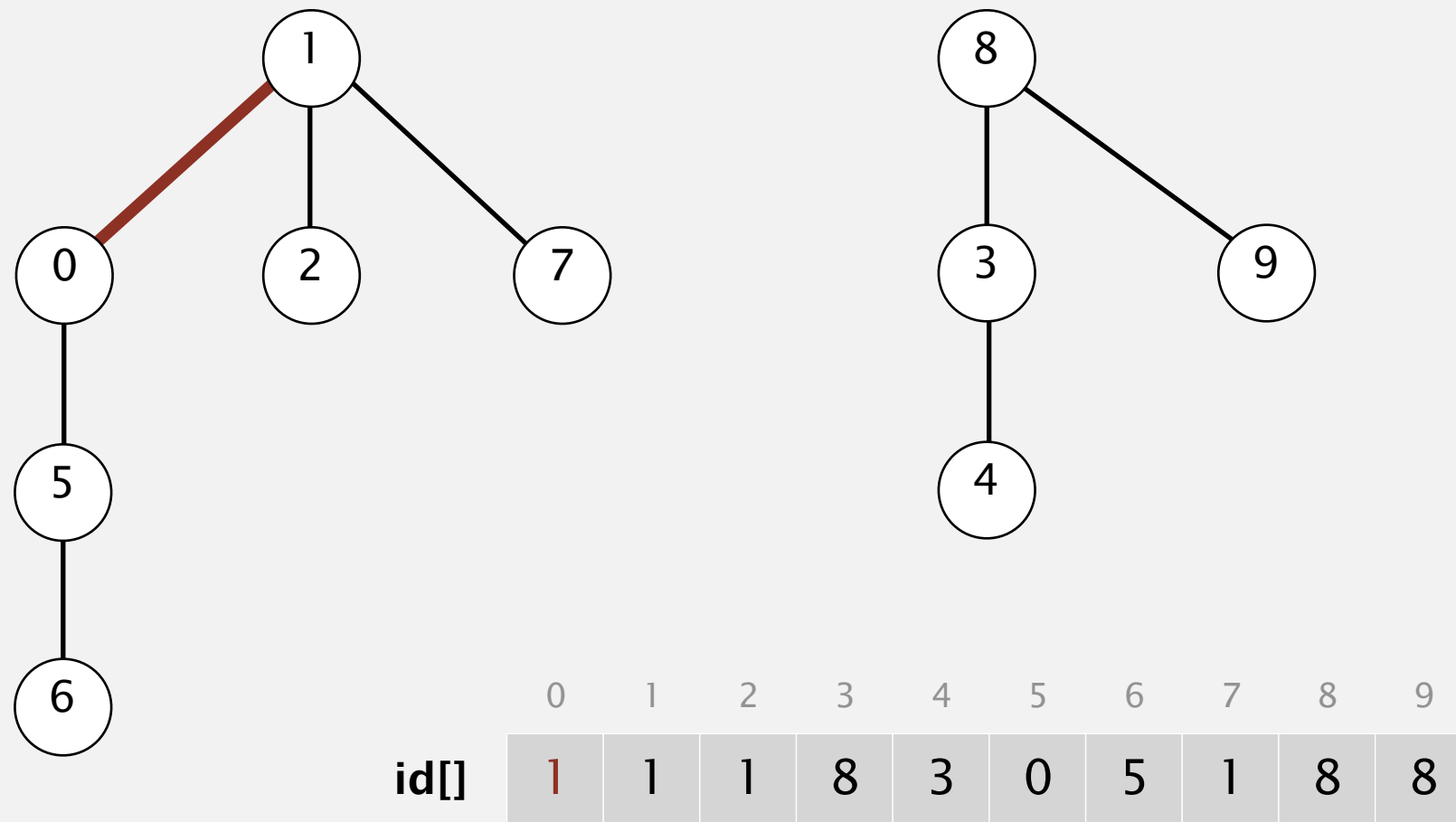
union(6, 1)



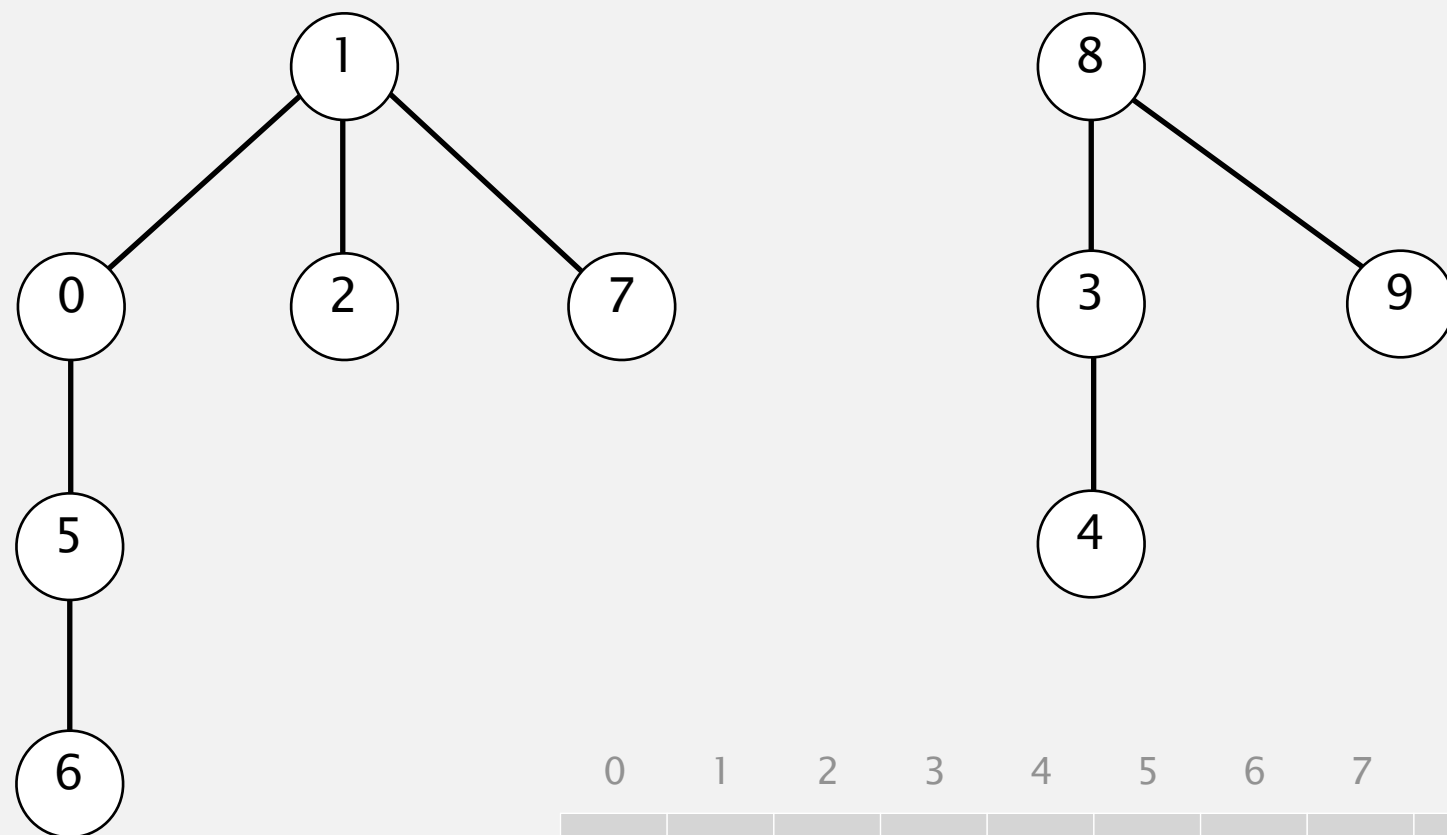
	0	1	2	3	4	5	6	7	8	9
id[]	0	1	1	8	3	0	5	1	8	8

Quick-union demo

union(6, 1)



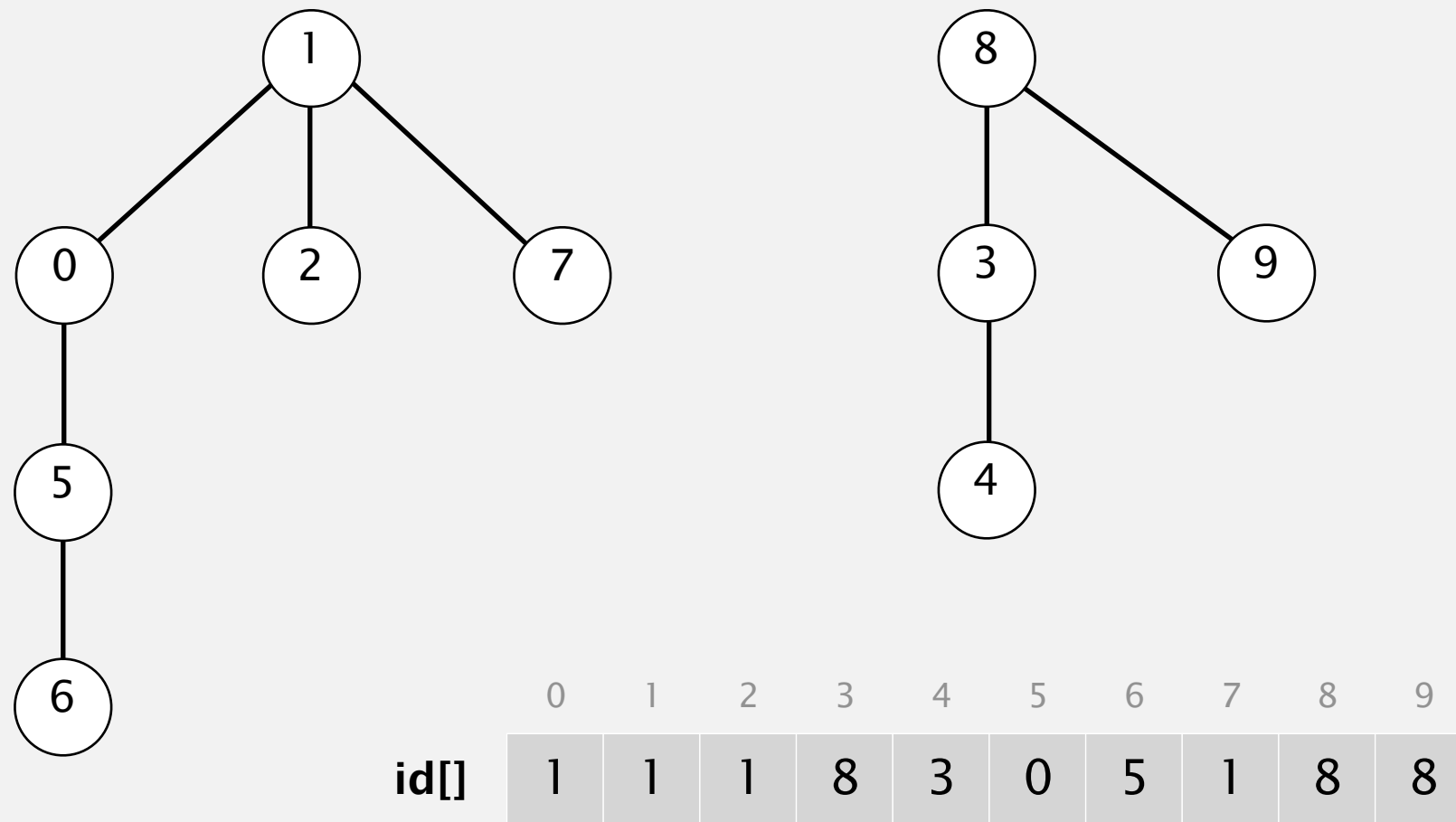
Quick-union demo



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

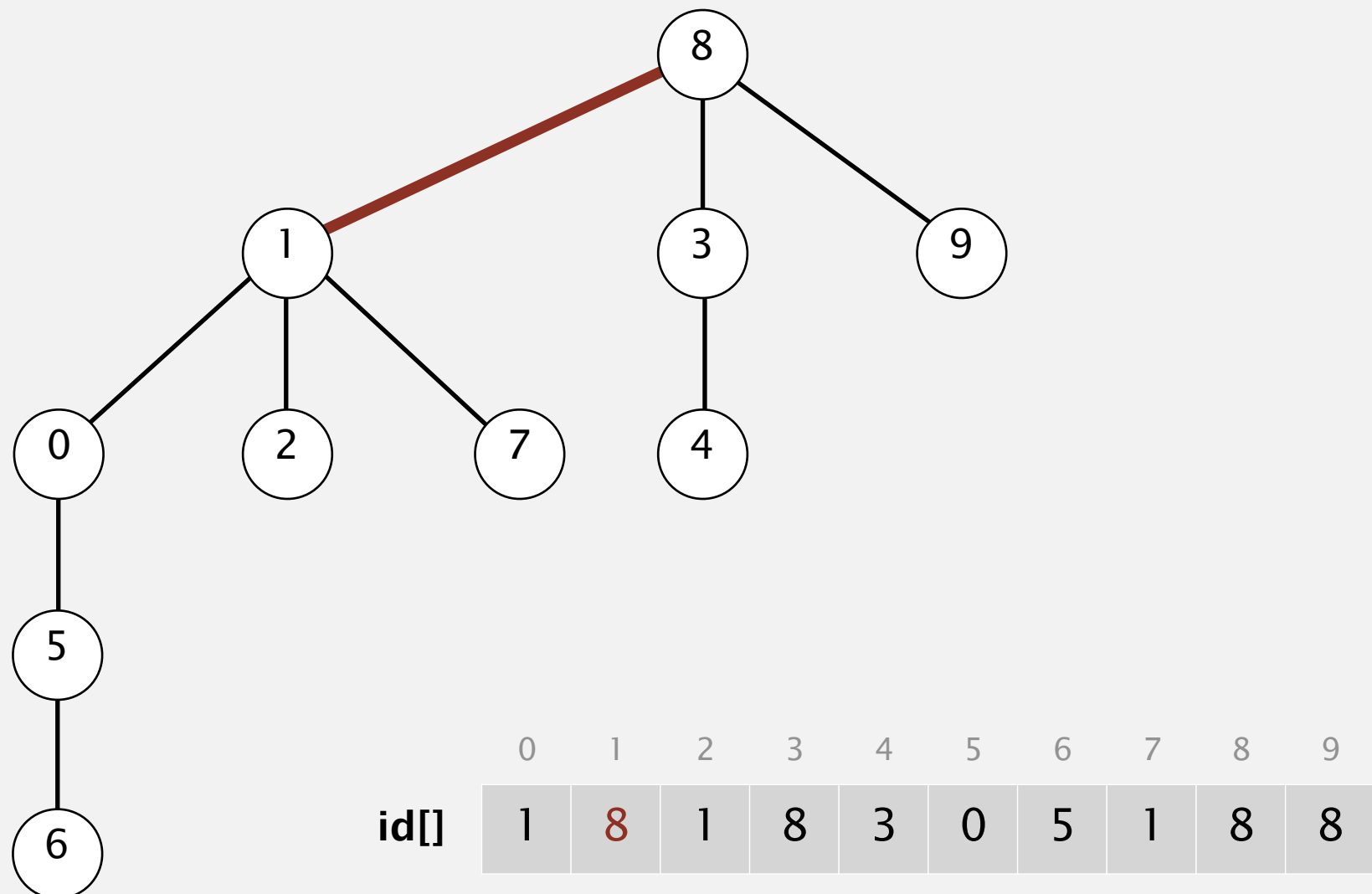
Quick-union demo

union(7, 3)



Quick-union demo

union(7, 3)



Quick-union demo

