

id	0	1	2	3	4	5	6	7	8	9
element	0	1	2	3	4	5	6	7	8	9

Quick Find:

id	0	1	2	3	4	5	6	7	8	9
(9, 0)	0	1	2	3	4	5	6	7	8	0
(3, 4)	0	1	2	4	4	5	6	7	8	0
(5, 8)	0	1	2	4	4	8	6	7	8	0
(7, 2)	0	1	2	4	4	8	6	2	8	0
(2, 1)	0	1	1	4	4	8	6	1	8	0
(5, 7)	0	1	1	4	4	1	6	1	1	0
(0, 3)	4	1	1	4	4	1	6	1	1	0
(4, 2)	1	1	1	1	1	1	6	1	1	1

Quick Union:

id	0	1	2	3	4	5	6	7	8	9
(9, 0)	0	1	2	3	4	5	6	7	8	0
(3, 4)	0	1	2	4	4	5	6	7	8	0
(5, 8)	0	1	2	4	4	8	6	7	8	0
(7, 2)	0	1	2	4	4	8	6	2	8	0
(2, 1)	0	1	1	4	4	8	6	2	8	0
(5, 7)	0	1	1	4	4	8	6	2	1	0
(0, 3)	4	1	1	4	4	8	6	2	1	0
(4, 2)	4	1	1	4	1	8	6	2	1	0

Weighted Union:

Size Array:

1	1	1	1	1	1	1	1	1	1
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Id Array:

(9, 0)	9	1	2	3	4	5	6	7	8	9
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(3, 4)	9	1	2	3	3	5	6	7	8	9
	1	1	1	2	1	1	1	1	1	2

(5, 8)	9	1	2	3	3	5	6	7	5	9
	1	1	1	2	1	2	1	1	1	2

(7, 2)	9	1	7	3	3	5	6	7	8	9
	1	1	1	2	1	2	1	2	1	2

(2, 1)	9	7	7	3	3	5	6	7	5	9
	1	1	1	2	1	4	1	2	1	2

(5, 7)	9	7	7	3	3	5	6	5	5	9
	1	1	2	2	1	4	1	2	1	2

(0, 3)	9	7	7	3	3	5	6	5	5	3
	1	1	2	3	1	4	1	2	1	2

(4, 2)	9	7	7	3	3	5	6	5	5	3
	1	1	3	3	1	4	1	2	1	2

Weighted Union with Path Compression:

(9, 0)	9	1	2	3	4	5	6	7	8	9
	1	1	1	1	1	1	1	1	1	1

(3, 4)	9	1	2	3	3	5	6	7	8	9
	1	1	1	2	1	1	1	1	1	2

(5, 8)	9	1	2	3	3	5	6	7	5	9
	1	1	1	2	1	2	1	2	1	2

(7, 2)	9	1	7	3	3	5	6	7	5	9
	1	1	1	2	1	2	1	2	1	2

(2, 1)	9	7	7	3	3	5	6	7	5	9
	1	1	2	2	1	2	1	2	1	2

(5, 7)	9	7	7	3	3	5	6	5	5	9
	1	1	2	2	1	4	1	2	1	2

(0, 3)	9	7	7	3	3	5	6	5	5	3
	1	1	2	3	1	4	1	2	1	2

(4, 2)	9	7	7	5	3	5	6	5	5	3
	1	1	3	3	1	4	1	2	1	2