Results for union without optimizations:
0 (45, 9)
1 (46, 9)
2 (47, 9)
3 (48, 9)
4 (49, 9)
5 (45, 8)
6 (46, 8)
7 (47, 8)
8 (48, 8)
9 (49, 8)
10 (45, 7)
11 (46, 7)
12 (47, 7)
13 (48, 7)
14 (49, 7)
15 (45, 6)
16 (46, 6)
17 (47, 6)
18 (48, 6)
19 (49, 6)
20 (45, 5)
21 (46, 5)
22 (47, 5)
23 (48, 5)
24 (49, 5)
25 (45, 4)
26 (46, 4)
27 (47, 4)
28 (48, 4)
29 (49, 4)
30 (45, 3)
31 (46, 3)
32 (47, 3)
33 (48, 3)
34 (49, 3)
35 (45, 2)
36 (46, 2)
37 (47, 2)
38 (48, 2)
39 (49, 2)
40 (45, 1)
41 (46, 1)
42 (47, 1)

43 (48, 1)
44 (49, 1)
45 (45, 0)
46 (46, 0)
47 (47, 0)
48 (48, 0)
49 (49, 0)

Results for union with union-by-size and path compression:
0 (0, 0)
1 (1, 0)
2 (2, 0)
3 (3, 0)
4 (4, 0)
5 (0, 1)
6 (1, 1)
7 (2, 1)
8 (3, 1)
9 (4, 1)
10 (0, 1)
11 (1, 1)
12 (2, 1)
13 (3, 1)
14 (4, 1)
15 (0, 1)
16 (1, 1)
17 (2, 1)
18 (3, 1)
19 (4, 1)
20 (0, 1)
21 (1, 1)
22 (2, 1)
23 (3, 1)
24 (4, 1)
25 (0, 1)
26 (1, 1)
27 (2, 1)
28 (3, 1)
29 (4, 1)
30 (0, 1)
31 (1, 1)
32 (2, 1)
33 (3, 1)
34 (4, 1)

35 (0, 1)
36 (1, 1)
37 (2, 1)
38 (3, 1)
37 (2, 1)
38 (3, 1)
39 (4, 1)
40 (0, 1)
40 (0, 1)
40 (0, 1)
41 (1, 1)
42 (2, 1)
43 (3, 1)
44 (4, 1)
45 (0, 1)
46 (1, 1)
47 (2, 1)
48 (3, 1)
49 (4, 1)