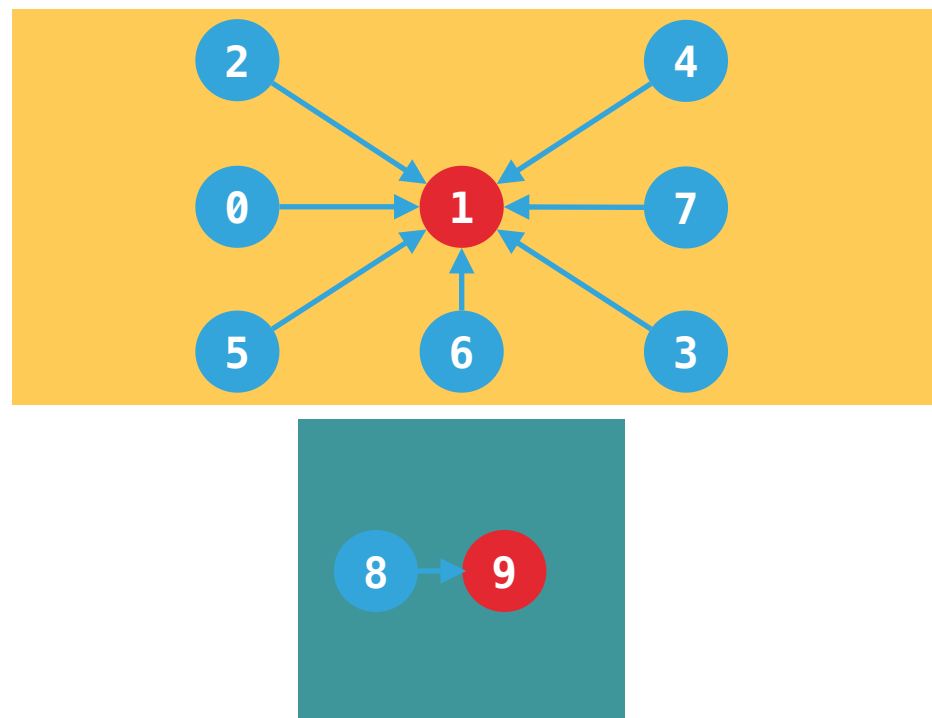


QUESTION 5.1.1 UNION-FIND: PATH COMPRESSION

Val	0	1	2	3	4	5	6	7	8	9
Rep	1	1	1	1	1	1	1	1	9	9



```
int find(int a) { //O(log n) ?  
    if(tab[a] != a)  
        tab[a] = find(tab[a]);  
    return tab[a];  
}
```

FIND(3)

FIND(2)

FIND(5)

QUESTION 5.1.1 UNION-FIND: WEIGHTED QUICK-UNION

	Find	Union
Quick-find	1	$O(n)$
Quick-union	$O(n)$ Hauteur de l'arbre	$O(n)$ Hauteur de l'arbre
Weighted quick-union	$O(\log(n))$	$O(\log(n))$
Weighted quick-union + comp	$< O(\log(n))$	$< O(\log(n))$