

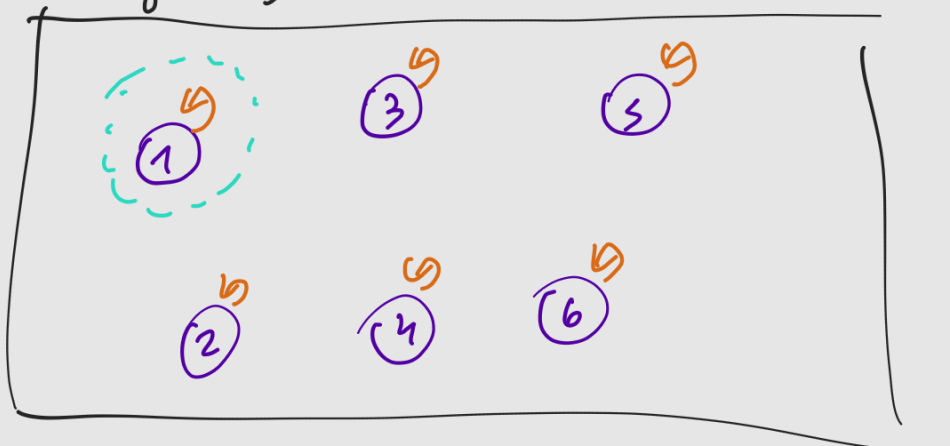
5 4



RUM  
1 1

Union Find (6) Constructor

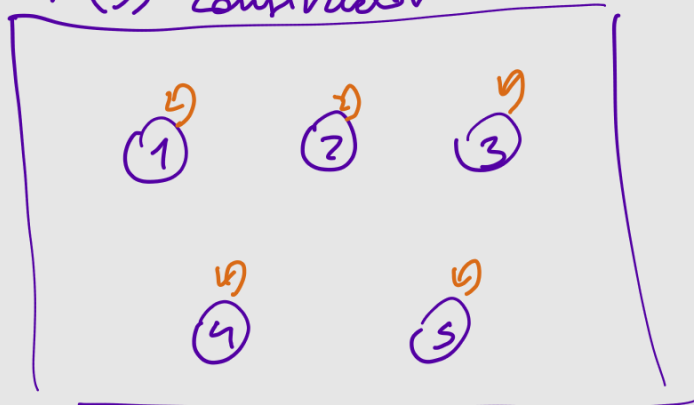
Conjuntos



1 → G<sub>1</sub>  
2 → G<sub>2</sub>  
3 → G<sub>3</sub>  
⋮

Find(1) → (conjuntos[1] == 1) ✓

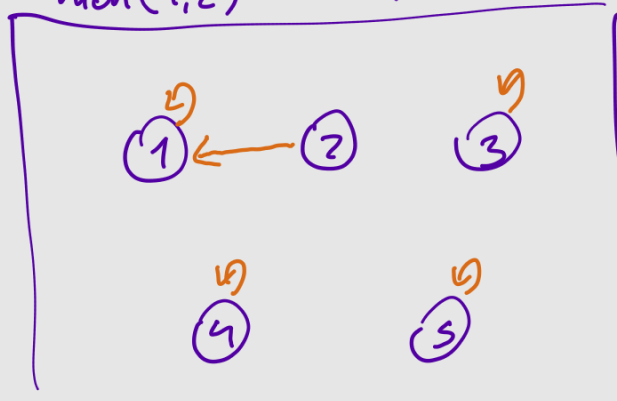
UF(5) constructor



representante  
1 ← G<sub>1</sub>  
2 ← G<sub>2</sub>  
3 ← G<sub>3</sub>  
4 ← G<sub>4</sub>  
5 ← G<sub>5</sub>

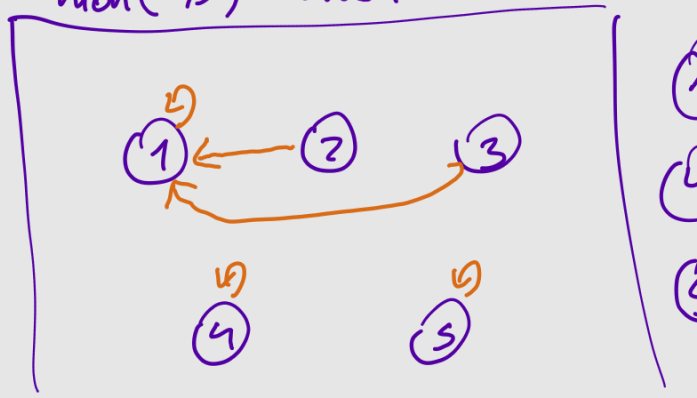
5	4
1	2
2	3
3	1
4	5

Union(1,2) Union uno

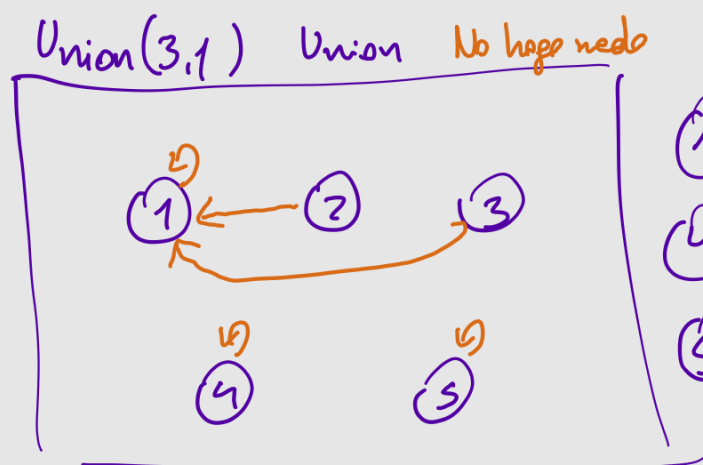


1 ← G<sub>1</sub>  
3 ← G<sub>3</sub>  
4 ← G<sub>4</sub>  
5 ← G<sub>5</sub>

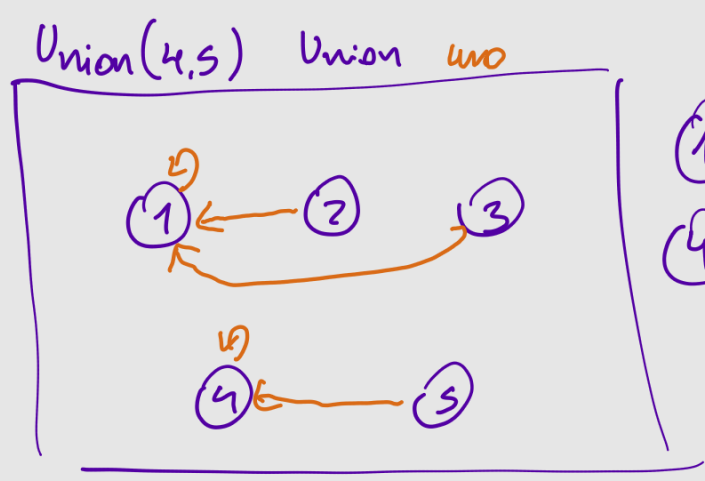
Union(2,3) Union uno



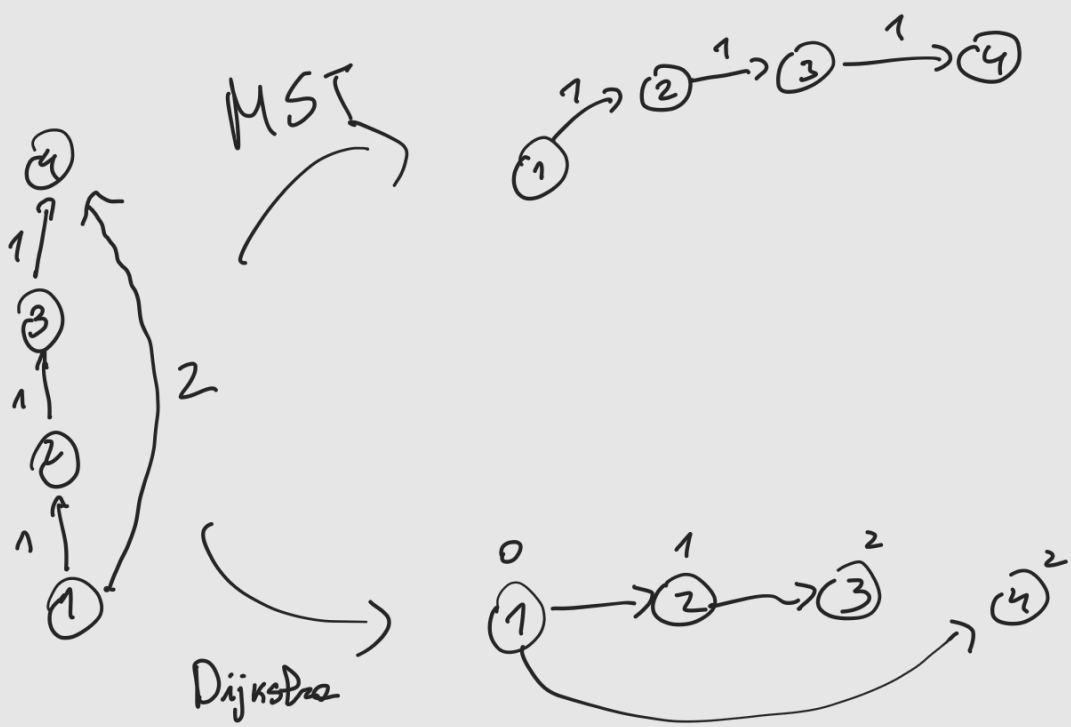
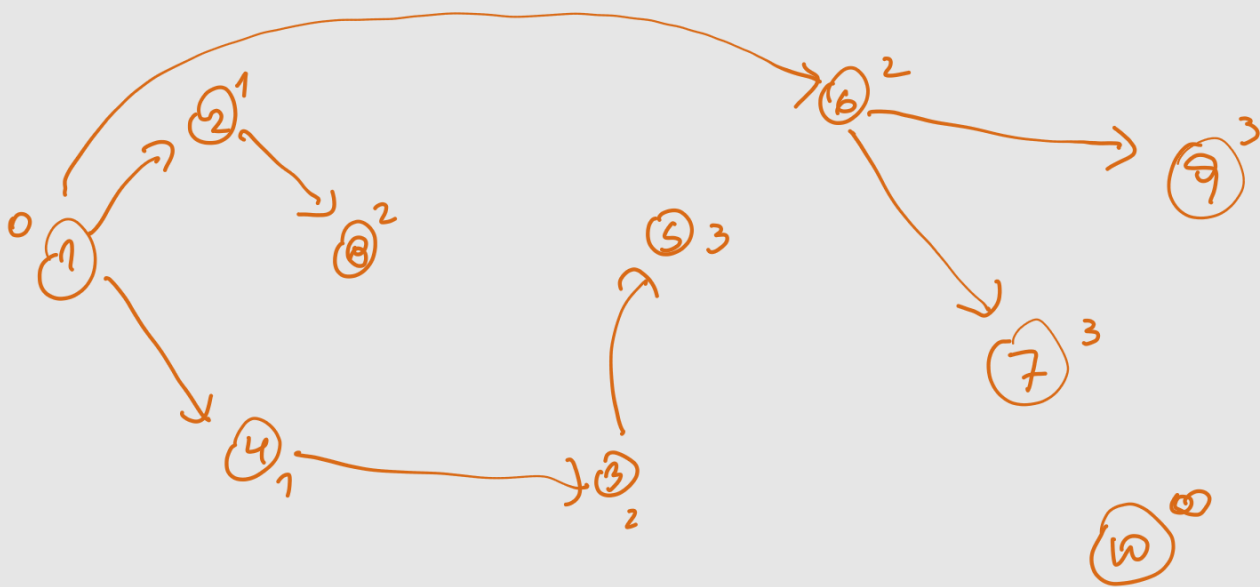
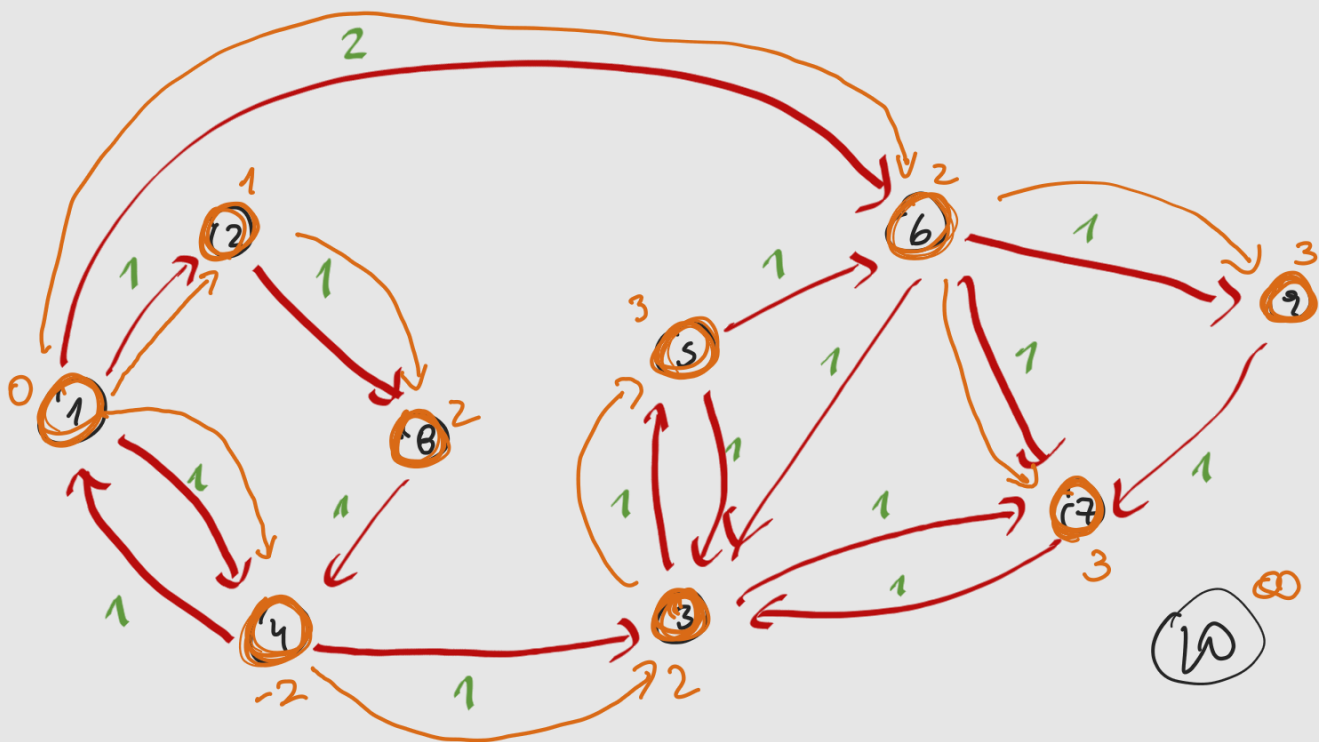
1 ← G<sub>1</sub>  
4 ← G<sub>4</sub>  
5 ← G<sub>5</sub>



① ←  $G_1$   
④ ←  $G_4$   
⑤ ←  $G_5$



① ←  $G_1$   
④ ←  $G_4$

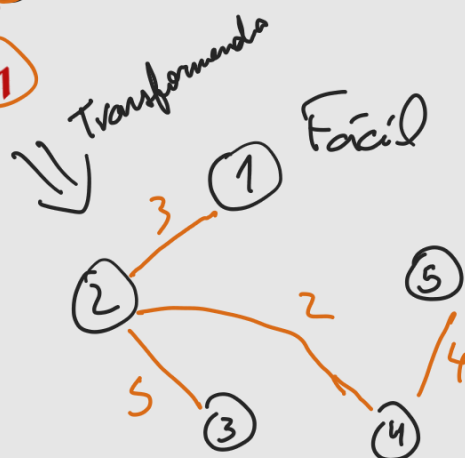


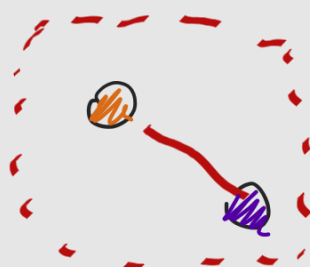
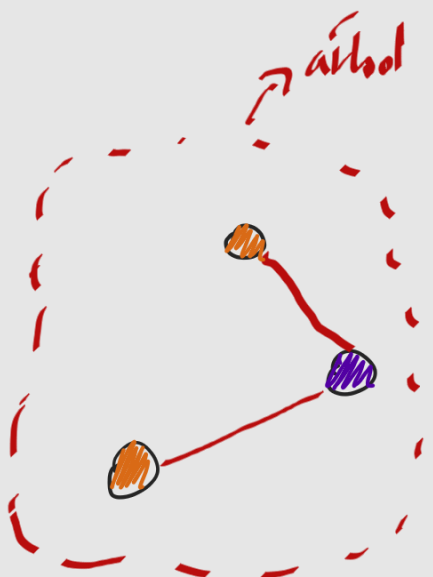
5	6	
1	2	3
2	3	5
2	4	2
3	4	8
5	1	7
5	4	4



$$3 + 2 + 4 + 5 = 14$$

(1,2) (1,2,4) (1,2,4,5) (1,2,3,4,5)

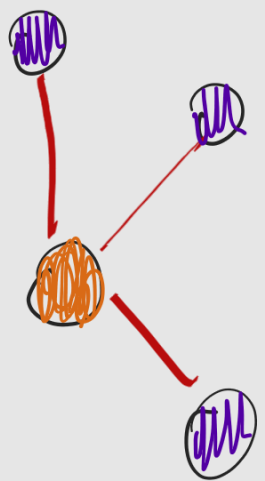




$$\min(4, 2)$$



$$\min(2, 0)$$



$$\min(1, 3)$$

	1	2	3	4
1	0	0	#	0
2	0	0	#	0
3	0	#	0	0
4	0	#	0	0

mapa

salida

1 Mov

Mov A



Mov B



25 opciones

Si  y  están en la mismo componente conexo la respuesta es 0.

