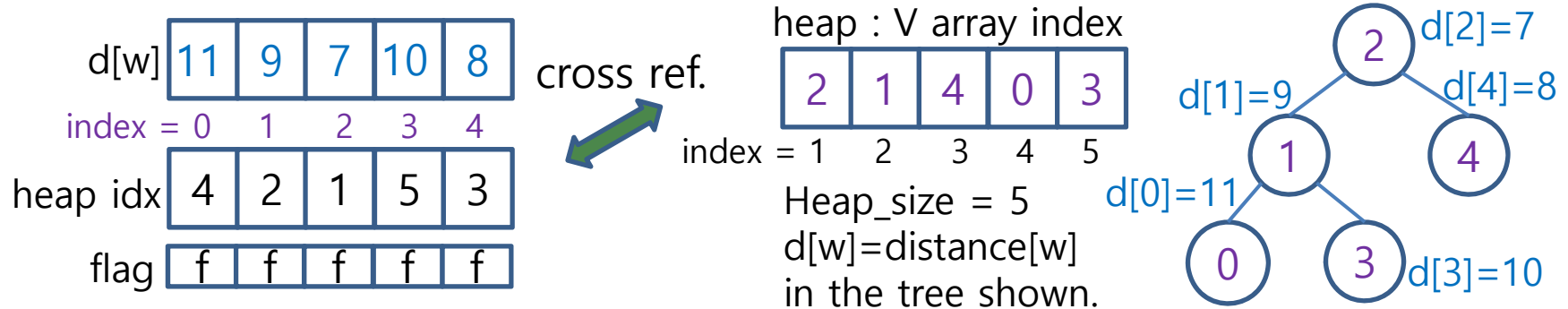


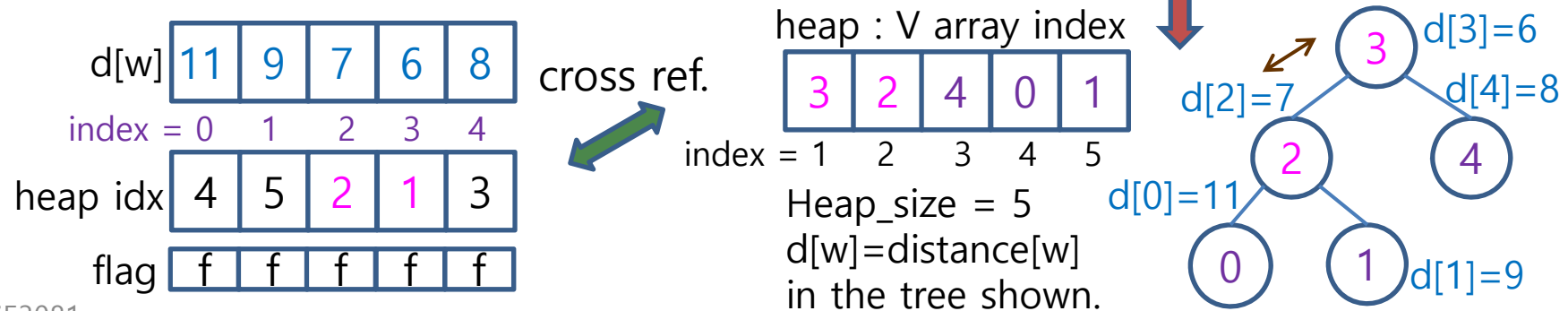
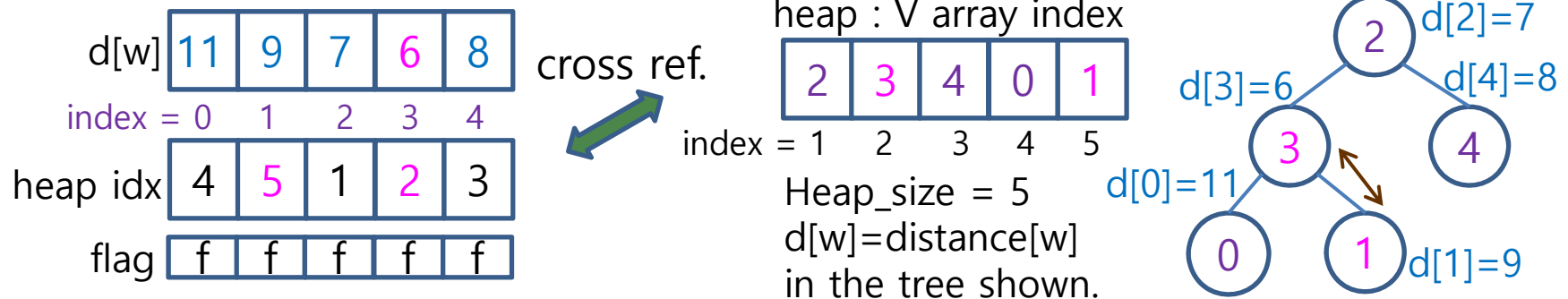


## ◆ Another Method for Heap Operations in Dijkstra's Alg.

◆ We still need the cross references (let  $d[w] = \text{distance}[w]$ ).



Suppose that  $\text{distance}[4]$  is changed from 10 to 6





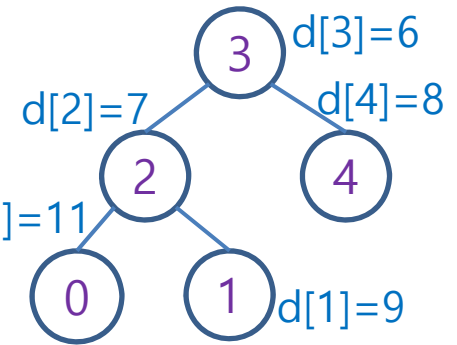
## ◆ Delete Min Example

d[w]	11	9	7	6	8
index =	0	1	2	3	4
heap idx	4	5	2	1	3
flag	f	f	f	f	f

cross ref.



heap : V array index	3	2	4	0	1
index =	1	2	3	4	5
Heap_size =	5				
d[w]=distance[w]					
in the tree shown.					

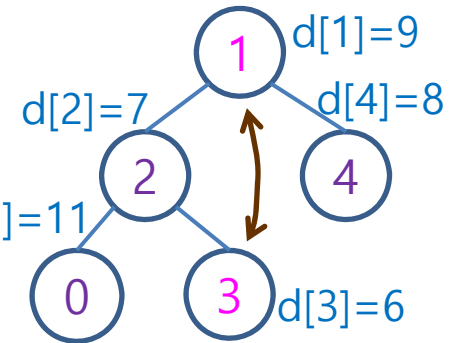


d[w]	11	9	7	6	8
index =	0	1	2	3	4
heap idx	4	1	2	5	3
flag	f	f	f	T	f

cross ref.



heap : V array index	1	2	4	0	3
index =	1	2	3	4	5
Heap_size =	4				
d[w]=distance[w]					
in the tree shown.					



d[w]	11	9	7	6	8
index =	0	1	2	3	4
heap idx	4	2	1	5	3
flag	f	f	f	T	f

cross ref.



heap : V array index	2	1	4	0	3
index =	1	2	3	4	5
Heap_size =	4				
d[w]=distance[w]					
in the tree shown.					

