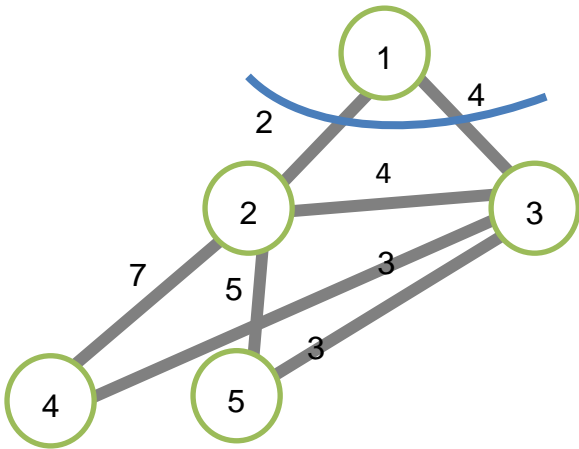


Shortest Path 學習單

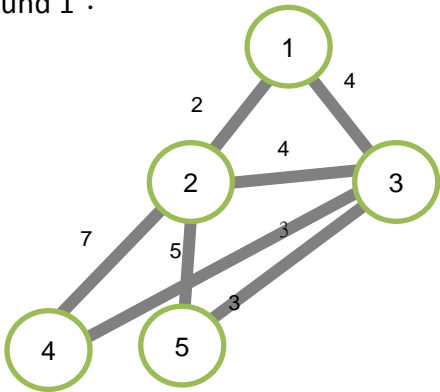
我是_____年_____班_____

1. 請以 Dijkstra 法找出下面這張圖的以 1 為起點的最短路徑並標出正確聯盟的範圍線

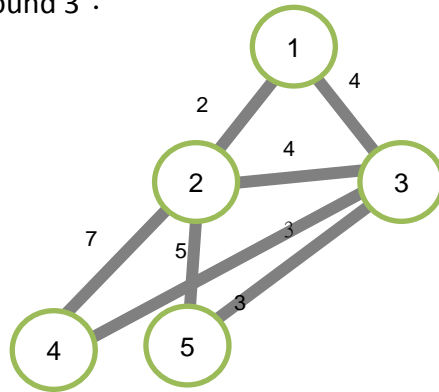


1	2	3	4	5
0	20	40	INF	INF

Round 1 :



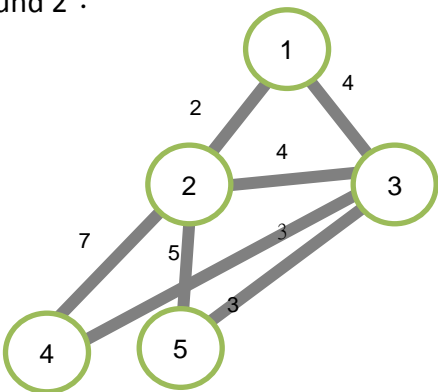
Round 3 :



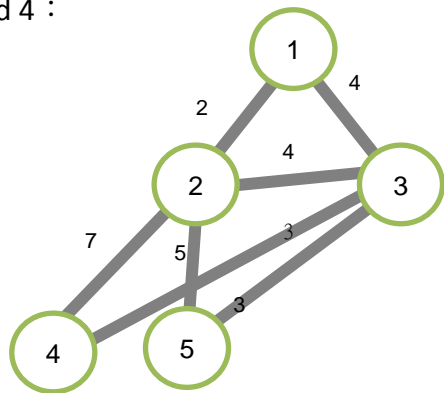
1	2	3	4	5
0				

1	2	3	4	5
0				

Round 2 :



Round 4 :

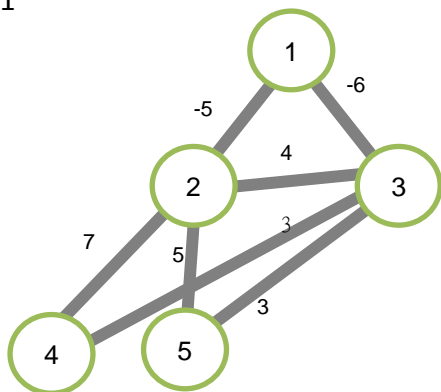


1	2	3	4	5
0				

1	2	3	4	5
0				

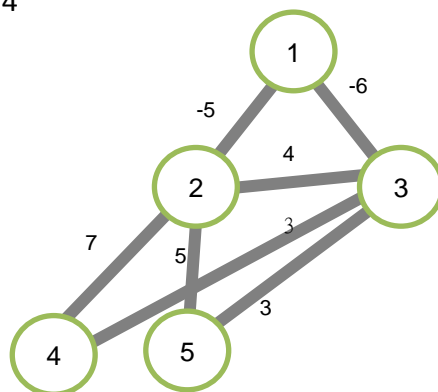
2. 請以 1 為起點做 Bellman-Ford，並偵測負環(邊的順序： $(1,2) \rightarrow (1,3) \rightarrow (2,3) \rightarrow (2,4) \rightarrow (2,5) \rightarrow (3,4) \rightarrow (3,5)$)

Round 1



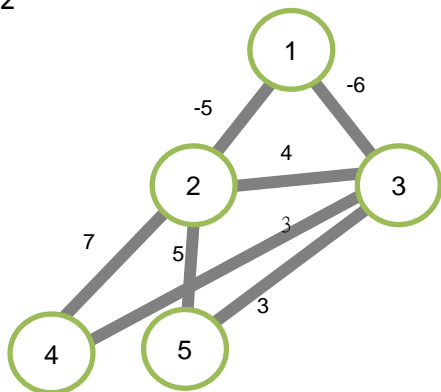
1	2	3	4	5
0				

Round 4



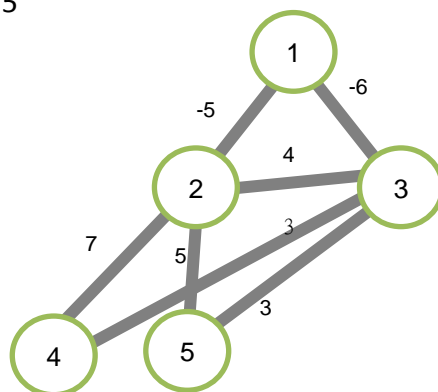
1	2	3	4	5
0				

Round 2



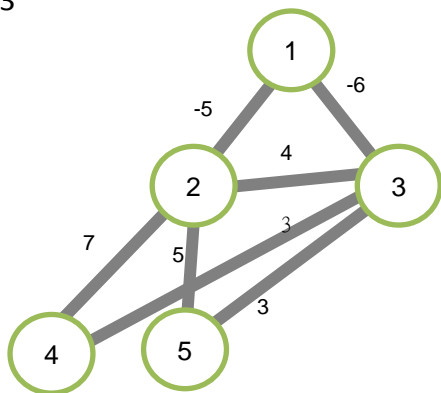
1	2	3	4	5
0				

Round 5



1	2	3	4	5
0				

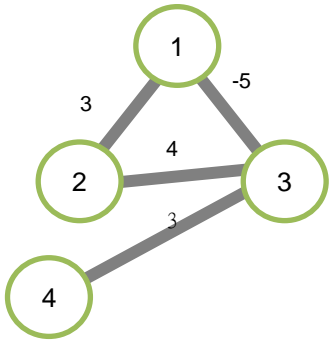
Round 3



1	2	3	4	5
0				

3. 請寫出下圖 Floyd-Warshall 過程的 DP 和 last 表格

Init



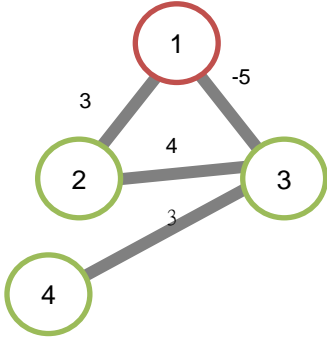
DP

	1	2	3	4
1				
2				
3				
4				

last

	1	2	3	4
1				
2				
3				
4				

k=1



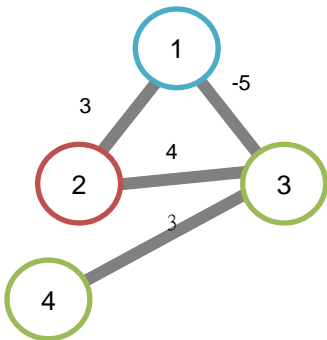
DP

	1	2	3	4
1				
2				
3				
4				

last

	1	2	3	4
1				
2				
3				
4				

k=2



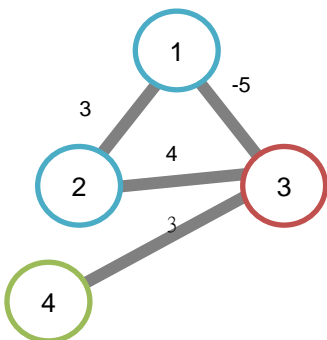
DP

	1	2	3	4
1				
2				
3				
4				

last

	1	2	3	4
1				
2				
3				
4				

k=3



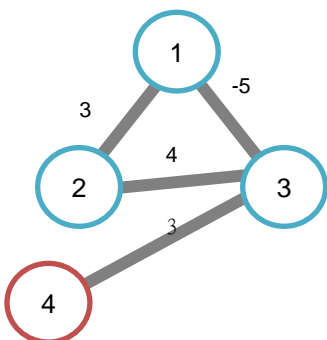
DP

	1	2	3	4
1				
2				
3				
4				

last

	1	2	3	4
1				
2				
3				
4				

k=4



DP

	1	2	3	4
1				
2				
3				
4				

last

	1	2	3	4
1				
2				
3				
4				