HW18b - 4.10
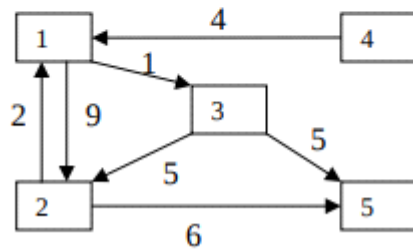
4. Assuming Floyd's algorithm uses node 1 for its first pivot and node 2 as its second pivot, give the adjacency matrix after the first two iterations, i.e. after using both node 1 as a pivot and node 2 as a pivot.

Original Matrix

	1	2	3	4	5
1	0	9	1	-	-
2	2	0	-	-	6
3	-	5	0	-	5
4	4	-	-	0	-
5	-	-	-	-	0

Pivot with Node 1

	1	2	3	4	5
1	0	9	1	-	-
2	2	0	3 (1)	-	6
3	-	5	0	-	5
4	4	13 (1)	5 (1)	0	-
5	-	-	-	-	0

Pivot with Node 2

	1	2	3	4	5
1	0	9	1	-	15 (2)
2	2	0	3 (1)	-	6
3	7 (2)	5	0	-	5
4	4	13 (1)	5 (1)	0	19 (2)
5	-	-	-	-	0