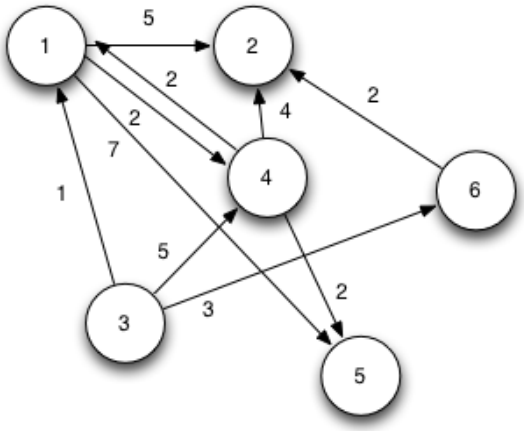
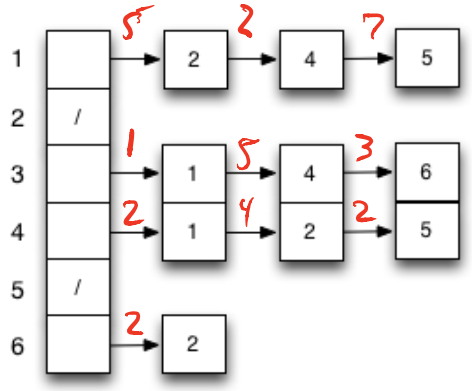
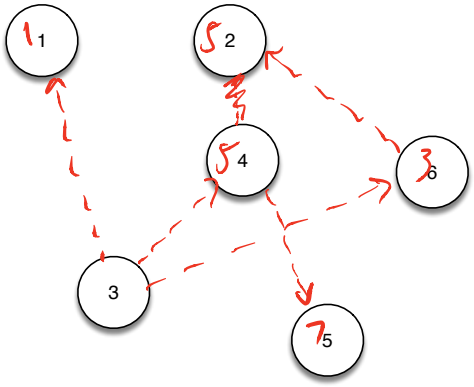
Show the execution of the Bellman-Ford algorithm using *vertex 3* as the source. Fill in the d and π values for each edge relaxation pass.

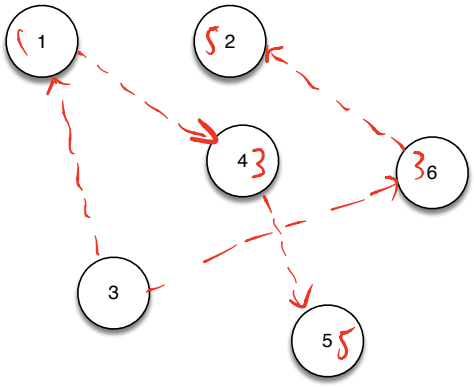






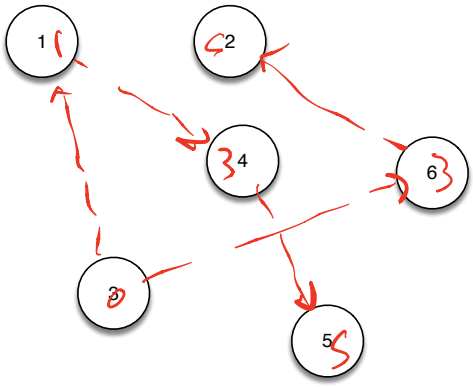
	1	2	3	4	5	6
d	1	5	0	5	7	3
π	3	4	/	3	4	3

Pass 1



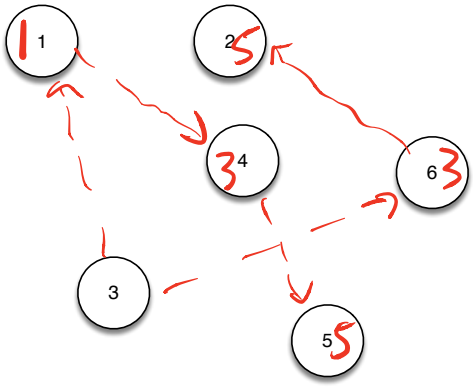
	1	2	3	4	5	6
d	1	5	0	8	5	3
π	3	6	/	3	4	3

Pass 2



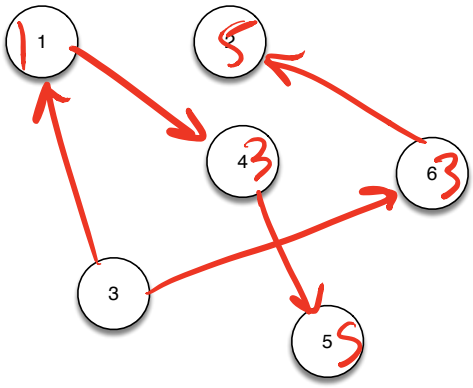
	1	2	3	4	5	6
d	1	5	0	3	5	3
π	3	6	/	1	4	3

Pass 3



	1	2	3	4	5	6
d	1	5	0	3	5	3
π	3	6	/	1	4	3

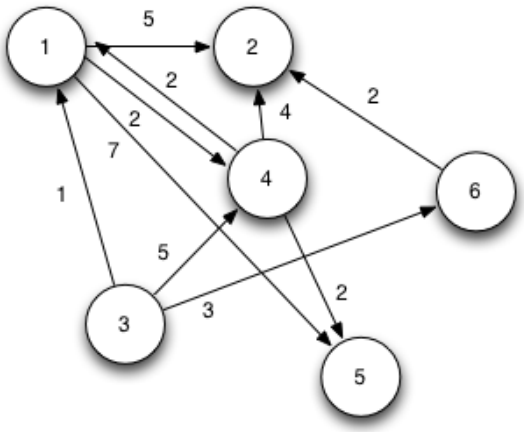
Pass 4

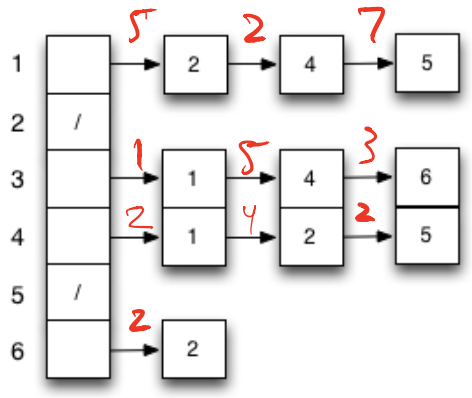


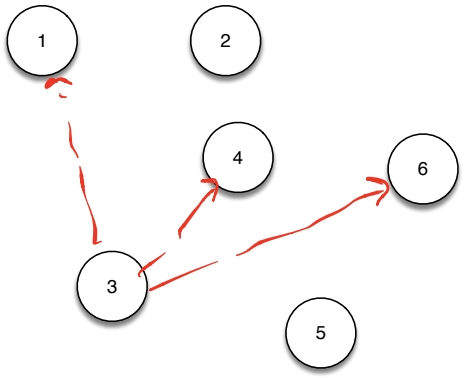
	1	2	3	4	5	6
d	1	5	0	3	5	3
π	3	6	/	1	4	3

Pass 5

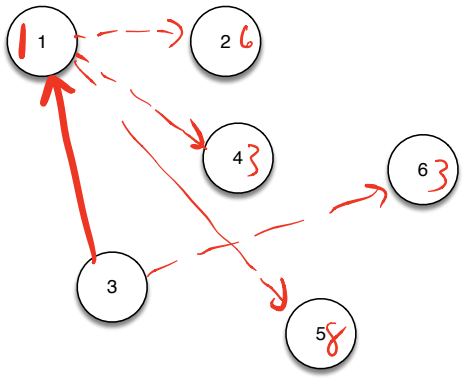
Show the execution of Dijkstra's algorithm using *vertex 3* as the source. Fill in the chart for the final d and π values, indicate the edges used in the shortest paths, and list the order that the vertices were *removed* from the queue during the execution of the algorithm.



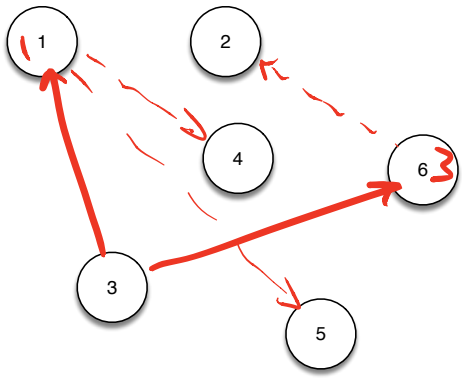




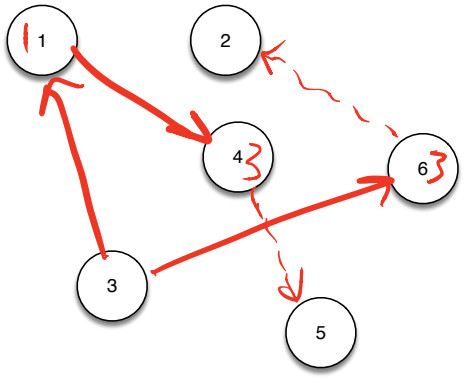
	key	u	pi	
	1	1	3	
	3	6	3	
3	8	4	3	1
6	20	2	3	1
8	20	5	X	1



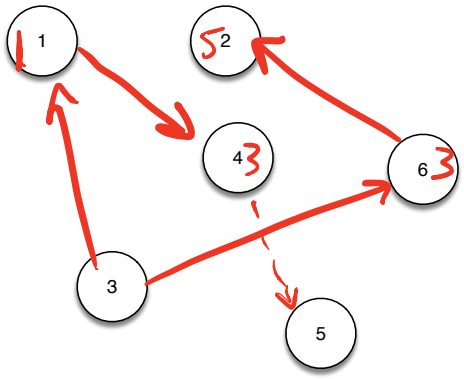
	key	u	pi	
	3	6	3	
	3	4	1	
5	6	2	X	6
	8	5	1	



key	u	pi
~~3~~	~~4~~	~~1~~
5	2	6
~~8~~	5	X



key	u	pi
~~5~~	~~2~~	~~6~~
5	5	4



key	u	pi
~~5~~	~~5~~	~~4~~