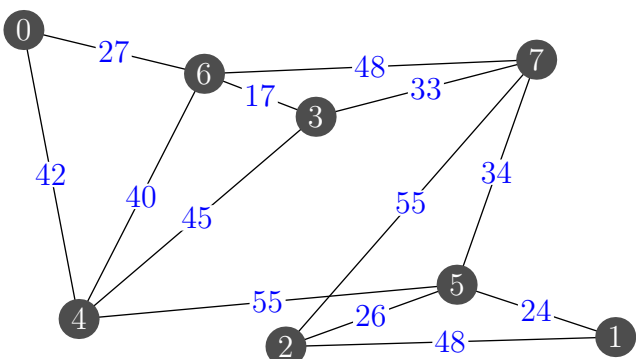
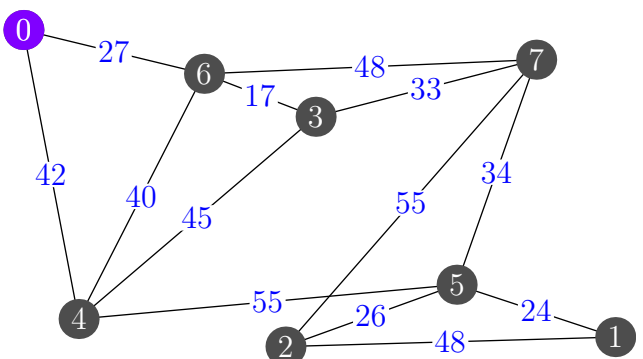
	0	1	2	3	4	5	6	7
d[]	∞	∞	∞	∞	∞	∞	∞	∞



	0	1	2	3	4	5	6	7
d[]	0	∞	∞	∞	∞	∞	∞	∞

node=0

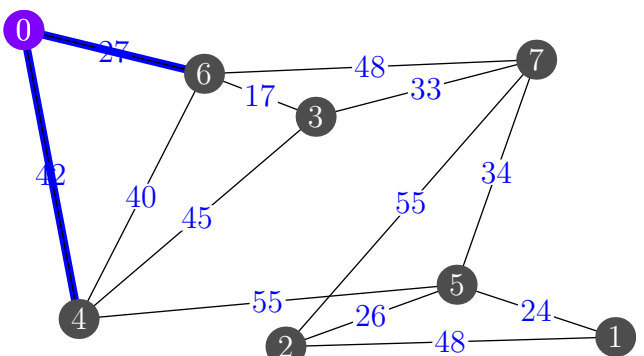


	0	1	2	3	4	5	6	7
d[]	0	∞	∞	∞	42	∞	27	∞

neighbours of node 0 added to PQ

node=0

PQ (27, (0,6))
(42, (0,4))

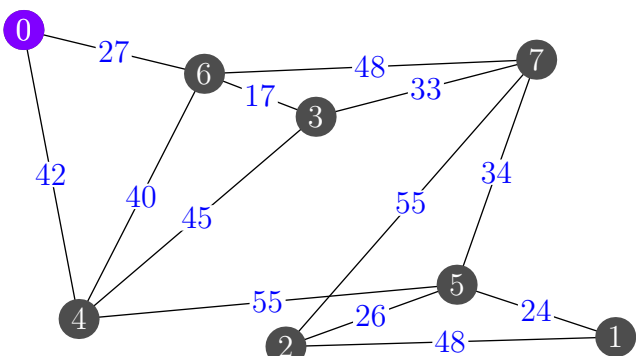


	0	1	2	3	4	5	6	7
d[]	0	∞	∞	∞	42	∞	27	∞

node=0

PQ (27, (0,6)) → nearest node=6

(42, (0,4))

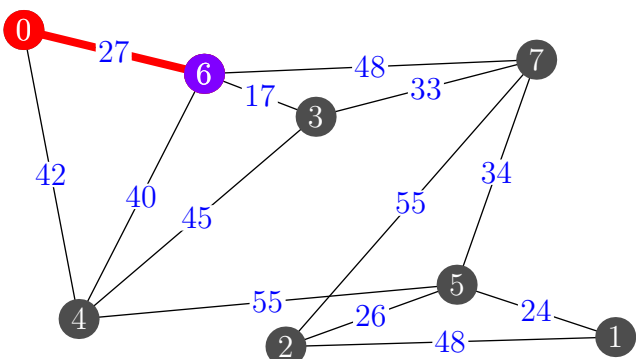


	0	1	2	3	4	5	6	7
d[]	0	∞	∞	∞	42	∞	0	∞

add edge (0,6) to MST

node=6

PQ (42, (0,4))



	0	1	2	3	4	5	6	7
d[]	0	∞	∞	17	40	∞	0	48

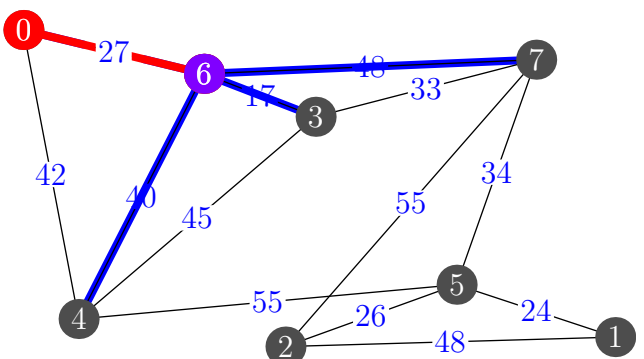
neighbours of node 6 added to PQ

node=6

PQ (17, (6,3))

(42, (0,4)) (40, (6,4))

(48, (6,7))



	0	1	2	3	4	5	6	7
d[]	0	∞	∞	17	40	∞	0	48

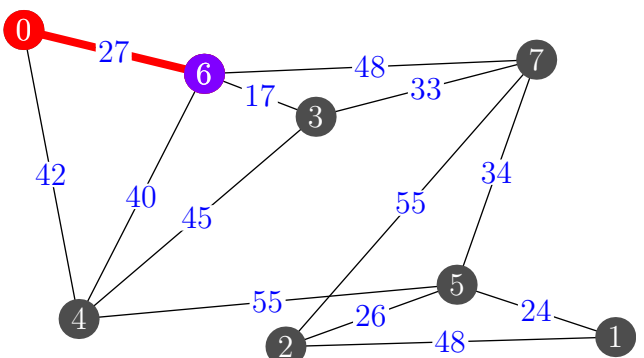
node=6

PQ (17, (6,3)) → nearest node=3

(42, (0,4))

(40, (6,4))

(48, (6,7))



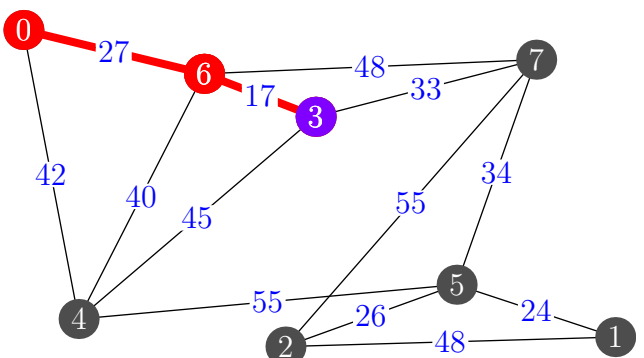
	0	1	2	3	4	5	6	7
d[]	0	∞	∞	0	40	∞	0	48

add edge (6,3) to MST

node=3

PQ (40, (6,4))

(42, (0,4)) (48, (6,7))



	0	1	2	3	4	5	6	7
d[]	0	∞	∞	0	40	∞	0	33

neighbours of node 3 added to PQ

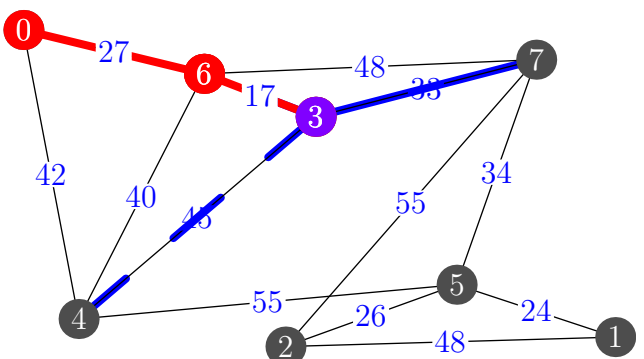
node=3

PQ (33, (3,7))

(40, (6,4))

(48, (6,7))

(42, (0,4))



	0	1	2	3	4	5	6	7
d[]	0	∞	∞	0	40	∞	0	33

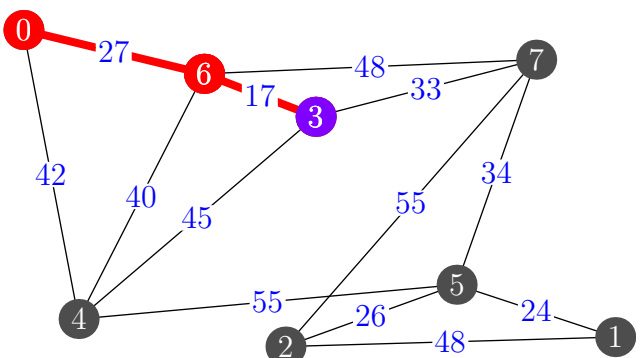
node=3

PQ (33, (3,7)) → nearest node=7

(40, (6,4))

(48, (6,7))

(42, (0,4))



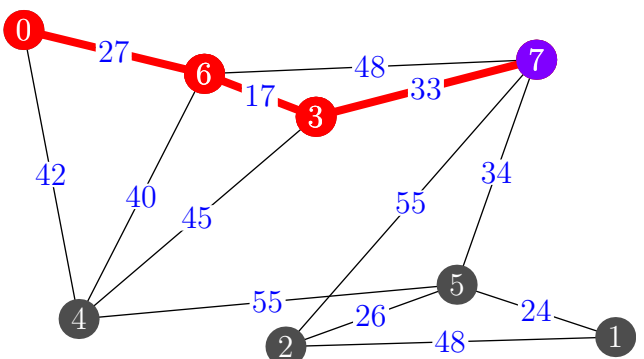
	0	1	2	3	4	5	6	7
d[]	0	∞	∞	0	40	∞	0	0

add edge (3,7) to MST

node=7

PQ (40, (6,4))

(42, (0,4)) (48, (6,7))



	0	1	2	3	4	5	6	7
d[]	0	∞	55	0	40	34	0	0

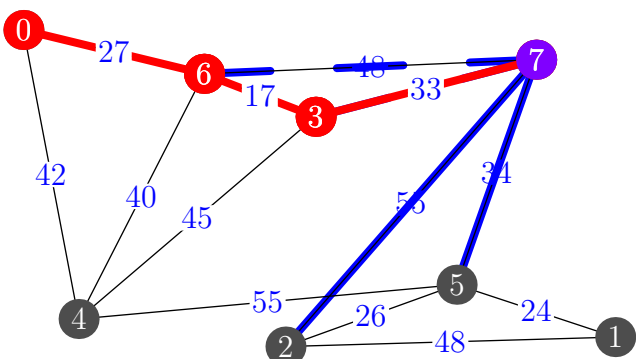
neighbours of node 7 added to PQ

node=7

PQ (34, (7,5))

(40, (6,4)) (48, (6,7))

(55, (7,2)) (42, (0,4))



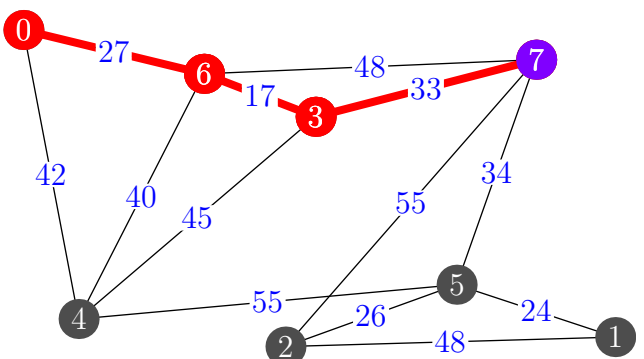
	0	1	2	3	4	5	6	7
d[]	0	∞	55	0	40	34	0	0

node=7

PQ (34, (7,5)) → nearest node=5

(40, (6,4)) (48, (6,7))

(55, (7,2)) (42, (0,4))



	0	1	2	3	4	5	6	7
d[]	0	∞	55	0	40	0	0	0

add edge (7,5) to MST

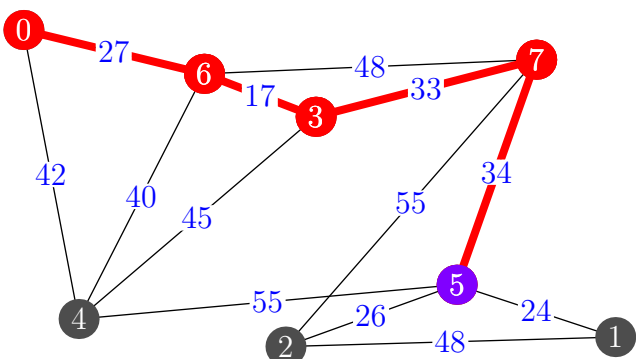
node=5

PQ (40, (6,4))

(42, (0,4))

(48, (6,7))

(55, (7,2))



	0	1	2	3	4	5	6	7
d[]	0	24	26	0	40	0	0	0

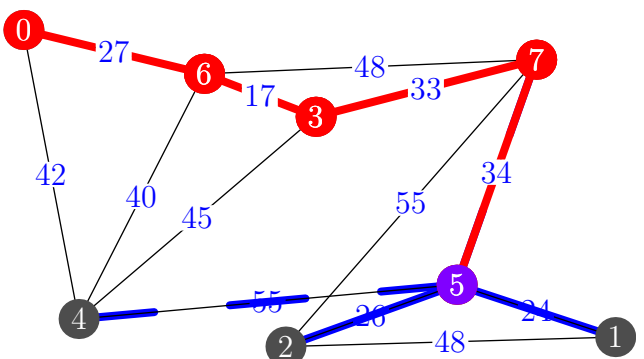
neighbours of node 5 added to PQ

node=5

PQ (24, (5,1))

(40, (6,4)) (26, (5,2))

(55, (7,2)) (42, (0,4)) (48, (6,7))



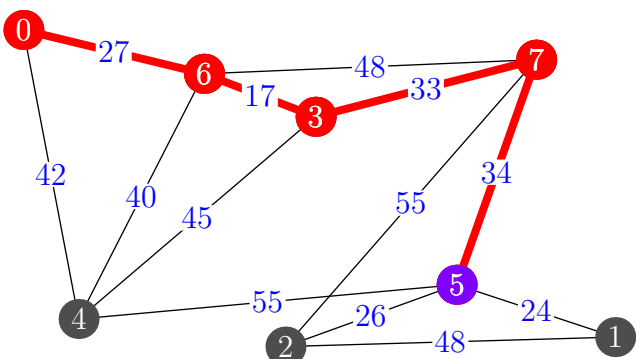
	0	1	2	3	4	5	6	7
d[]	0	24	26	0	40	0	0	0

node=5

PQ (24, (5,1)) → nearest node=1

(40, (6,4)) (26, (5,2))

(55, (7,2)) (42, (0,4)) (48, (6,7))



	0	1	2	3	4	5	6	7
d[]	0	0	26	0	40	0	0	0

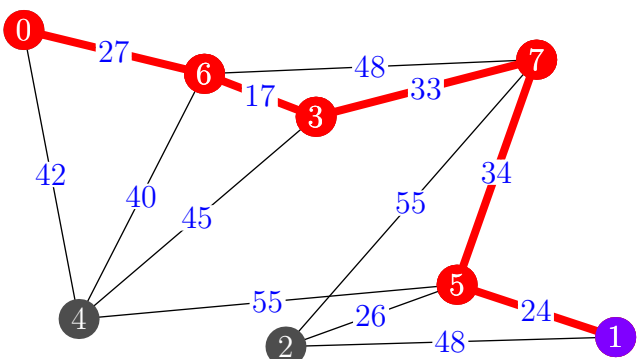
add edge (5,1) to MST

node=1

PQ (26, (5,2))

(40, (6,4)) (48, (6,7))

(55, (7,2)) (42, (0,4))



	0	1	2	3	4	5	6	7
d[]	0	0	26	0	40	0	0	0

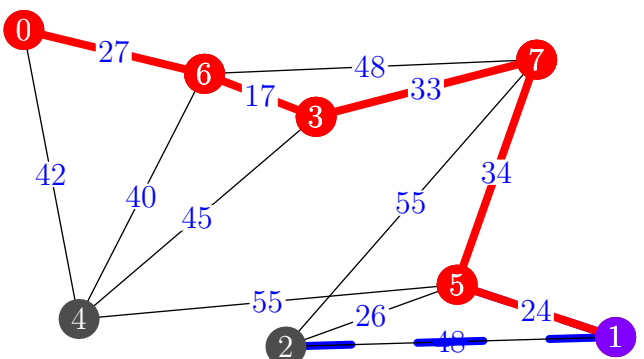
neighbours of node 1 added to PQ

node=1

PQ (26, (5,2))

(40, (6,4)) (48, (6,7))

(55, (7,2)) (42, (0,4))



	0	1	2	3	4	5	6	7
d[]	0	0	26	0	40	0	0	0

node=1

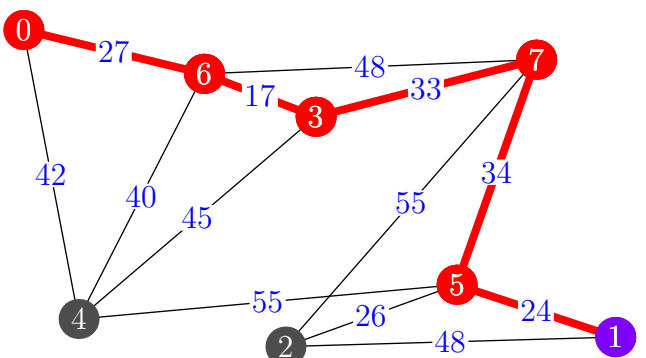
PQ (26, (5,2)) → nearest node=2

(40, (6,4))

(48, (6,7))

(55, (7,2))

(42, (0,4))



	0	1	2	3	4	5	6	7
d[]	0	0	0	0	40	0	0	0

add edge (5,2) to MST

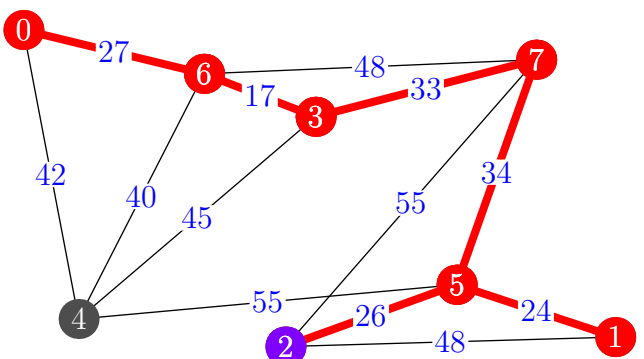
node=2

PQ (40, (6,4))

(42, (0,4))

(48, (6,7))

(55, (7,2))



	0	1	2	3	4	5	6	7
d[]	0	0	0	0	40	0	0	0

neighbours of node 2 added to PQ

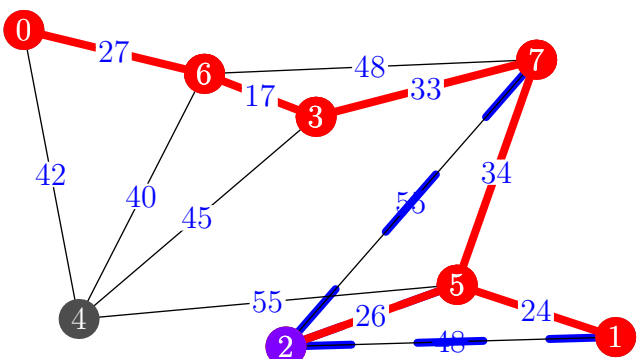
node=2

PQ (40, (6,4))

(42, (0,4))

(48, (6,7))

(55, (7,2))



	0	1	2	3	4	5	6	7
d[]	0	0	0	0	40	0	0	0

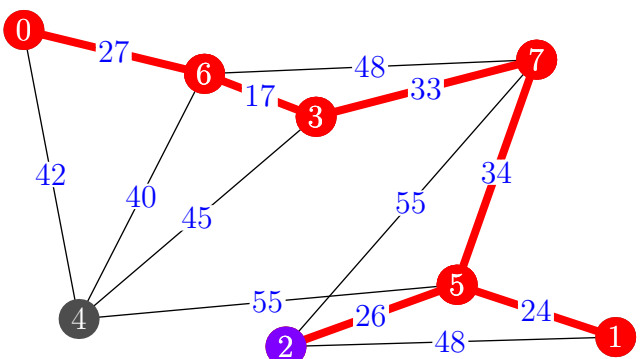
node=2

PQ (40, (6,4)) → nearest node=4

(42, (0,4))

(48, (6,7))

(55, (7,2))

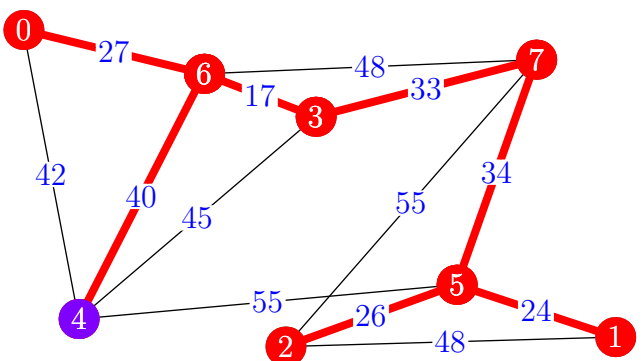


	0	1	2	3	4	5	6	7
d[]	0	0	0	0	40	0	0	0

add edge (6,4) to MST

PQ (42, (0,4))

(55, (7,2)) (48, (6,7))



Finished MST