



$$S = 0$$

$$t = 1$$

	x	y	dist:dictionary	q:priority queue	prev:dictionary
initialization			0	(0,0)	
iteration 1	0		0 1 2		1 2
iteration 1.1		1	0 5	(1,5)	0
iteration 1.2		2	0 5 1	(1,5) (2,1)	0 0
iteration 2	1		0 1 2 3	(2,1)	1 2 3
iteration 2.1		3	0 5 1 7	(2,1) (3,7)	0 0 1
iteration 3	2		0 1 2 3	(3,7)	1 2 3
iteration 3.1		1	0 2 1 7		1 0 1
iteration 3.2		3	0 2 1 3	(3,3)	1 0 2
iteration 4	3		0 1 2 3 4		1 2 3 4
iteration 4.1		0	0 2 1 7	(3,3)	1 0 2
iteration 4.2		4	0 2 1 3 7	(3,3) (4,7)	1 0 2 3
iteration 5	4		0 1 2 3 4		1 2 3 4
iteration 5.1		0	0 2 1 3 7		
iteration 5.2		1	0 2 1 3 7		
iteration 5.3		2	0 2 1 3 7	(4,7)	1 0 2 3

The final path is $0 \rightarrow 2 \rightarrow 1$ with a cost of 2