

4	1	∞	∞	∞	∞	∞
	2	9	8	∞	∞	∞
		8	∞	∞	9	∞
			8	7	∞	∞
				3	∞	1
					6	2
						∞

Figure 1: Triangular matrix representing a weighted graph of order 8

Figure 1 shows the triangle matrix representation of a weighted graph of order eight. The symbol “ ∞ ” indicates that there is no edge between those two vertices.

1. Draw the graph, labeling each edge with its weight. Do not draw edges of infinite weight. You may wish to give the vertices names.
2. Show the steps of Kruskal’s algorithm, computing a minimum spanning tree for the graph. You should draw eight figures, each obtained from the previous one by adding one more edge. Your last figure should be the minimum spanning tree.