

Table 1: Answer for Question #2(a). The shortest-path estimates are shown within the vertices; empty vertices have estimates equal to infinity (∞). Bold edges indicate predecessor values. Bold vertices are in the set S and regular vertices are in the priority queue $Q = V - S$. (a) The situation before the first execution of the **while** loop on lines 4–8. (b)–(f) The situation after each successive iteration of the **while** loop. Note that edges for which relaxation is attempted in each successive iteration of the **while** loop are marked with circles.

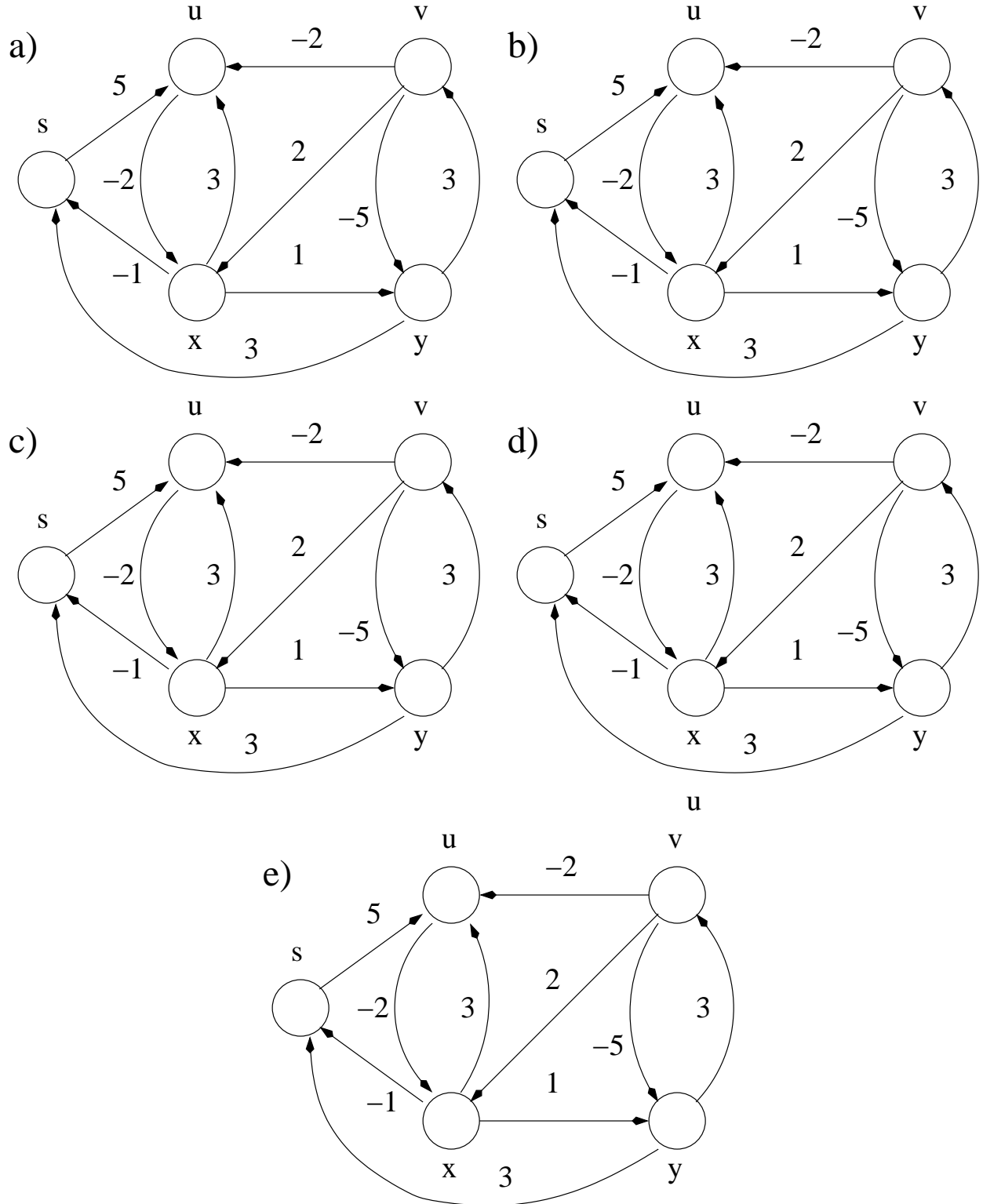


Table 2: Answer for Question #2(b). The shortest-path estimates are shown within the vertices; empty vertices have estimates equal to infinity (∞). Bold edges indicate predecessor values. (a) The situation just before the first pass over the edges. (b)–(e) The situation after each successive pass over the edges.

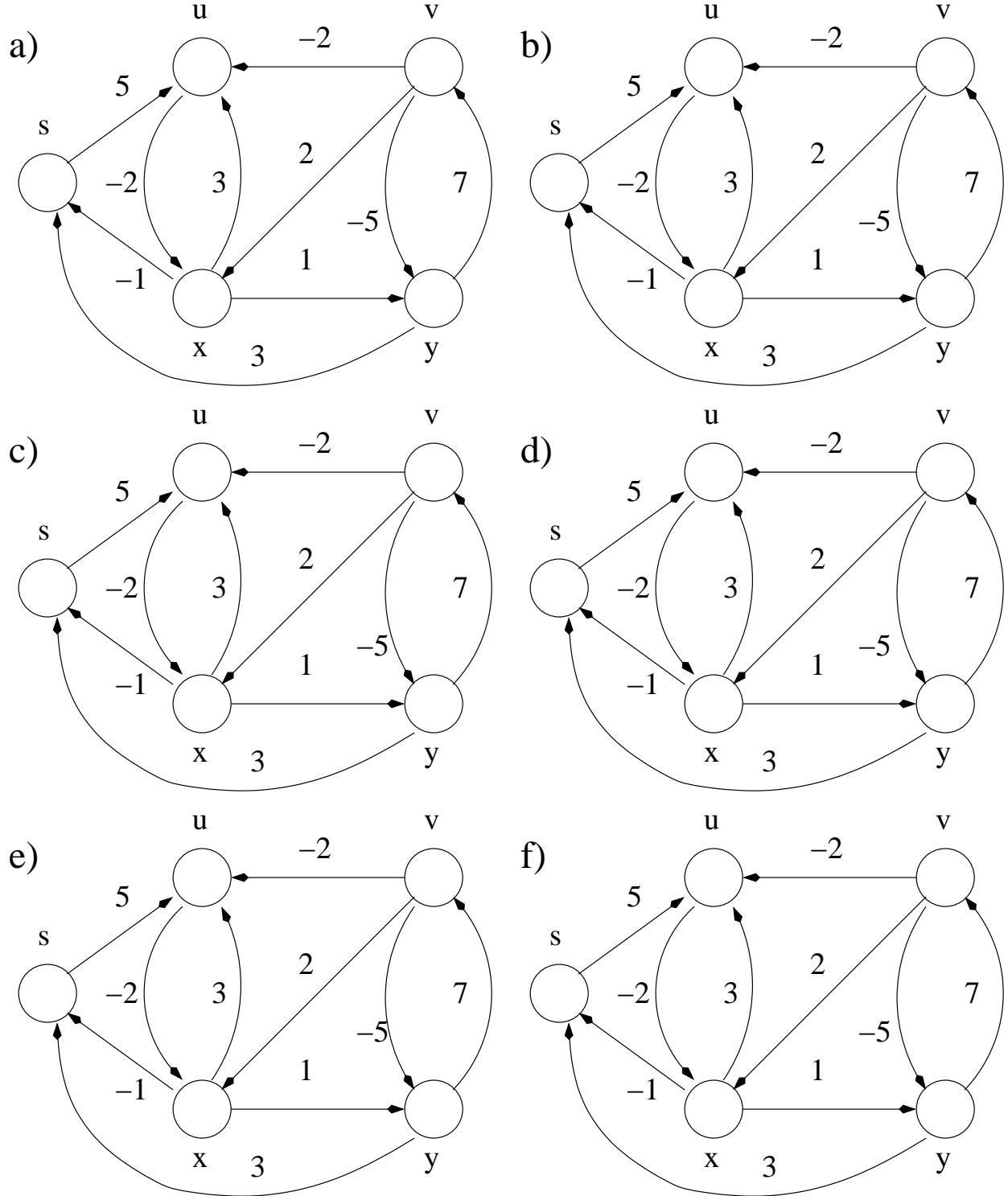


Table 3: Answer for Question #2(c). The shortest-path estimates are shown within the vertices; empty vertices have estimates equal to infinity (∞). Bold edges indicate predecessor values. Bold vertices are in the set S and regular vertices are in the priority queue $Q = V - S$. (a) The situation before the first execution of the **while** loop on lines 4–8. (b)–(f) The situation after each successive iteration of the **while** loop. Note that edges for which relaxation is attempted in each successive iteration of the **while** loop are marked with circles.

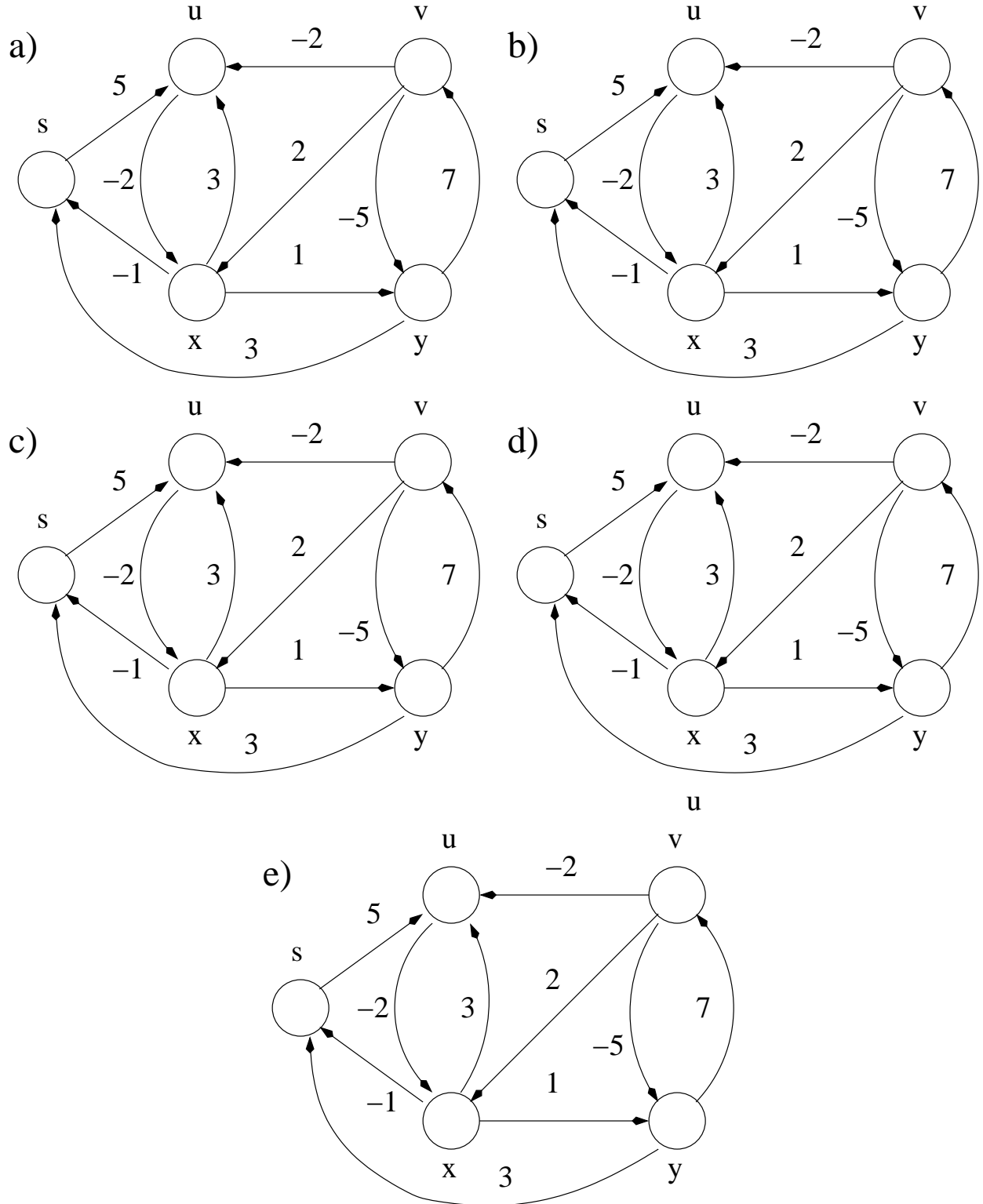


Table 4: Answer for Question #2(d). The shortest-path estimates are shown within the vertices; empty vertices have estimates equal to infinity (∞). Bold edges indicate predecessor values. **(a)** The situation just before the first pass over the edges. **(b)–(e)** The situation after each successive pass over the edges.