b)

time: O (E log V (log log V)3)

space: O (n)

c)

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Reverse Kruskal** | **Kruskal** | **Prim** |
| Time | O (E log V (log log V)3) | O(E log V) | adjacency matrix, searching: O(|V|2)  binary heap, adjacency list: O((V+E) log V)  Fibonacci heap, adjacency list: O(E+V log V) |
| Space | O(n) | O(n) | O(n) |
| Algorithm & Data Structure | Comparison sort | Comparison sort, disjoint-set data structure for best time complexity |  |