Quiz 7

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In the worst case, we would have to look at every edge in the graph before finding the minimum-cost edge, which takes O(E) time in the worst case. In Prim’s and Kruskal’s algorithms we use priority queue to organize the edges. In order to implement the priority queue, the heap is a suitable choice to fast access the smallest edge. The priority queue takes O(log|E|) time to find a shortest edge while maintaining the priority queue. So the total worst case complexity is O(|E|log|E|).