1. 1 step
2. N steps
3. 1 step
4. 1 step
5. 1 step
6. 1 step
7. 1 step
8. N + 1 steps \\ N for iterating over all the nodes and 1 step to make the comparison of the size
9. 1 step
10. MN + m steps \\ MN to compute the difference between two sets and m to check the edges
11. 1 step
12. 1 step
13. 1step
14. 1 step
15. 1 step
16. 1 step

Steps 1-7: 6 + N steps

Steps 8-15: {(N+1) [(MN + M)4]+1}

Step 16: 1

Total: 7 + N + 4MNN +4MN +4MN +4M +(N + 1)

Runtime: N + MNN + MN +MN + M + N

Big O-Notion: O(MN2)