

COMP3121 Homework 3

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1 Question 1

- This will reduce the weak tie edges in the network.
- Compared with the previous approximation, the requirement of forming an edge is increased to 52 times per year. This action will reduce the edges between occasional friends or remote friends. We know that from the aspect of distance, the further away of two people, the less the probability they form a “weak tie”. Also, from the aspect of communication frequency, the more frequently they communicate with each other, the more the probability they form a “weak tie” or even “strong tie”.

2 Question 2

- It is 0-C-8-9.
- Starting from 0, it will check C and 4 to see which one is closer to 9. The distance between C and 9 is 3 and the distance between 4 and 9 is 5. So the first step is from 0 to C. Then, at node C, the algorithm will check which one of B and 8 is closer to 9. So the second step is from C to 8. Because of the same reason, the last step is from 8 to 9.
- Therefore, the path is 0-C-8-9.