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Hw\_3

1, determine if there is a chain of at most 7 friends such that Dirk is friends with both the first and the last person.

BFS:

* As a graph of this situation, Dirk to be the first node of the chain, after Dirk passes out the message, at most saw by 7 friends, will pass back to Dirk. Otherwise, this chain of at most 7 friends will not exists. with n nodes(person)
  + We have n nodes(person), and m edges for every person.

Run BFS:

* If a chain two nodes includes Dirk:

Start from Dirk,

If after first node link to the second node, the message pass back,

Return exist.

If a chain more than seven node, we run ,