



Level 3



Basic news spreading

Information spreads one day at a time.

Task for Level 3:

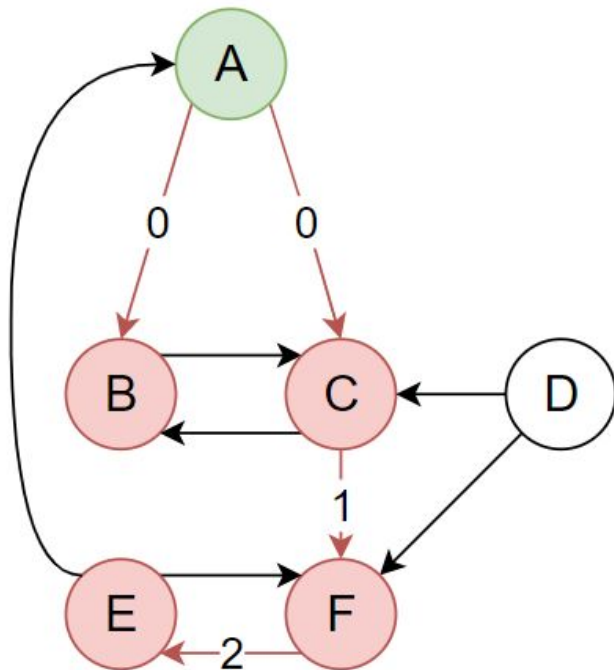
Knowing we have a list of influencers which initiate the information spread to their followers, print how many people have seen the news after 'x' amount of days.

In one day, information reaches at most all first degree connections.

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- › As in the previous level, we will consider that whenever anyone sees a news shared by a person they follow, they will share it again for their followers.
- › Unlike the previous level, **they don't share it immediately. The re-sharing only happens the next day.**
- › Moreover, news are usually **initially posted by multiple people**. Therefore we need to adapt our model to allow for multiple people starting the news.
- › For this level, we will give you multiple instances of news. Each of them is initially shared, in **day 0**, by multiple people. Their followers see the news on day 0
- › In day 1, their followers re-share the news and so on...
- › Find out how many people will have seen the news in a given time period.

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- › When A starts to share news, 5 people will see the information by day 2.
- › Even though F is sharing the information on day 2, it's followers will see it on the same day but share on the next one.



	Input	Output
Format	<pre>P name (repeats for P lines) E nameA nameB (repeats for E lines) N startCount dayCount startName startName ... (repeats startCount times) ... (repeats N times)</pre>	<pre>answer (repeated for N lines, one per query)</pre>
Types	<p>P (int) Number of people in our network name (string) Name of one person E (int) Number of follow relations in our network nameA (string) Name of the person that is followed nameB (string) Name of the person that follows N (int) Number of queries that follow startCount (int) Amount of people that start this query's news dayCount (int) Amount of days after which we want to know the reach startName (string) Name of one person that starts the news</p>	<p>answer (int) number of people that are reached by the news</p>
Example	<p><i>Sadly, example inputs and outputs can get a little too long and there is no room to show them here. Please download the level archive and open the example input and output from there. Thank you!</i></p>	