



Level 2

**Not everyone can reach anyone else**

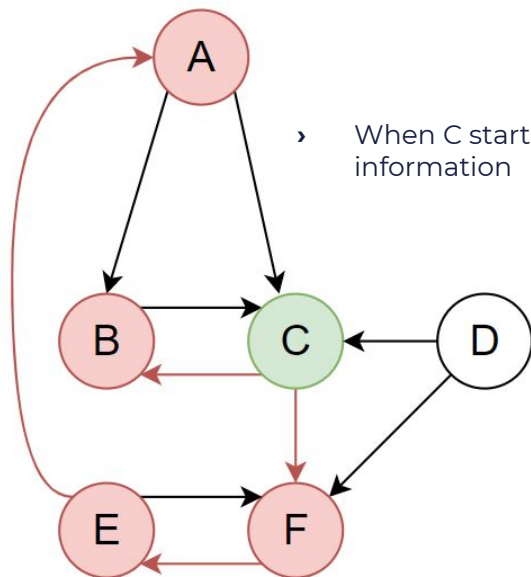
As in real life, not everybody follows everybody. Some people can be isolated in their own groups and whatever they share, wouldn't necessarily reach everybody else.

Task for Level 2:

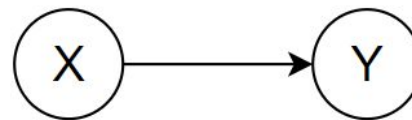
Given certain people, print the size of their potential reach.



- › For this level we will consider that whenever somebody sees any news shared, they will share it again for their followers to see, and subsequently their followers would do the same unless they have seen it before.
- › This propagation takes place instantly for the purposes of this level, meaning that it will instantly do all the propagation steps until nothing changes from one iteration to another.



- › When C starts to share news, 5 people will see the information



- › Information flows from X to Y. Y is a follower of X.



	Input	Output
Format	<i>P</i> <i>name</i> (repeats for <i>P</i> lines) <i>E</i> <i>nameA nameB</i> (repeats for <i>E</i> lines) <i>N</i> <i>queryName</i> (repeats for <i>N</i> lines)	<i>answer</i> (repeated for <i>N</i> lines, one per query)
Types	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 queryName (string) Person whose reach we want to find Same as level 1	answer (int) number of people that can be reached by the given person
Example	<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>	