Galactic Federation

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Earth has recently come across the galactic federation. All world leaders came together and decided to do all that is in our power to join the federation and have applied to join it. Luckily the currency in the federation is Bananas and as a result we can become the richest planet in the federation. There is a single planet in the federation that will decide our fate. As we do not know which planet that is, we have decided to use our bananas to bribe a subset of the planets to ensure that we get accepted into the federation. For the federation to work in an orderly manner, each planet in the federation has a boss planet that is in charge of them. Each planet could have zero or more planets directly under them, but only one planet being directly in charge of them. This is the case for all planets except for the governing planet, which has no planets in charge of them. By bribing a planet, it can convince the planet directly above as well as the planets directly under, to accept us into the federation. After a lot of research, we have managed to map the organisation of the federation. As well as the number of bananas required to bribe each planet. As we do not want the federation to be aware of our plan, we cannot bribe a planet and its superior. Your job is to calculate the smallest number of bananas required to ensure that Earth can join the galactic federation.

**Input & Output**

The input you will receive will be a number X, which is the number of planets in the federation. This is followed by X lines, each line starts with a number B, followed by a number S. B is the number of bananas required to bribe the specific planet, and S is the number of planets that are the current planet’s subordinates. This is followed by S numbers which are the indices of the planets that are these subordinates.

The following is an example of a problem:

5

10 2 1 2

2 0

2 2 3 4

5 0

7 0

The solution is 4.