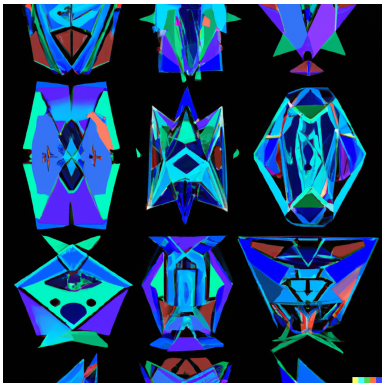
Problem D
Dee's NFTs
Time limit: 8 seconds



NFTs have been all the rage lately! Dee wants to capitalise on the excitement and is creating a new NFT to give away to anyone that wants it. Her NFT consists of N components. Component i is generated by choosing K_i different items from a set of M_i options for that component. All of the chosen items are then combined together to form the final NFT.

Dee wants every NFT generated from her system to be unique. Two NFTs are different if any of the components have a different set of items. Dee is very optimistic and thinks that up to 10^9 people might eventually want NFTs. She is worried that there might not be enough unique NFTs that can be generated using her chosen number of components and component item counts.

The number of unique NFTs is big enough if there are more than 10^9 of them (one for everyone plus one for Dee). Help Dee determine if the number of NFTs is big enough, and find the number of unique NFTs that can be generated if it is not.

Input

The first line of input contains a single integer N ($1 \leq N \leq 10$), which is the number of NFT components.

The next N lines describe the NFT components. Each of these lines contains two integers M_i ($1 \leq M_i \leq 10^6$) and K_i ($1 \leq K_i \leq M_i$), which indicate that component i has M_i options to choose from and K_i options will be chosen.

Output

If the number of unique NFTs that could be generated is greater than 10^9, display `BIG ENOUGH`. Otherwise, display the number of unique NFTs that could be generated.

Sample Input 1

```
2
3 1
4 2
```

Sample Output 1

```
18
```

Sample Input 2

```
3
10 10
5 5
2 1
```

Sample Output 2

```
2
```

Sample Input 3

```
3
10 5
100 55
1000 555
```

Sample Output 3

```
BIG ENOUGH
```