

Problem 1: Addams Family Reunion

Gomez Addams would like to plan a family reunion barbecue at which a most exquisite and expensive cut of steak will be served. In whatever year that he plans to have the reunion, etiquette dictates that all living family members must be invited and that each invitee will be served the amount of steak that they like to eat at a meal; however, the ongoing delicate state of the family finances can make only so many steaks available for any such reunion. Given these constraints, Gomez would like to have a reunion at which as many people as possible attend and the total number of steaks required is less than or equal to the number he can afford to purchase.

Write a program which, given a maximum number of steaks s and the lifetimes and steak preferences of n family members, computes and prints all years in which an Addams family reunion as described above can take place, along with the number of people that will be attending each such reunion. If no such reunion is possible under the given s and family description, the message “**Insufficient budget**” is printed. Your input will be an $(n + 1)$ -line textfile, in which the first line contains the values of n and s and each of the subsequent n lines describes a family member as a triplet of numbers (b, d, m) , where b and d are positive non-zero birth and death years such that $b \leq d$ and $m \geq 1$ is the number of steaks that this family member eats at a meal. You may assume that all input files are formatted correctly.

Sample input #1 (available as file “test1a.dat”):

```
5 4
1910 1999 1
1970 2025 2
2000 2056 1
2002 2003 1
2003 2090 2
```

Sample output #1:

```
Hold reunion in 2002 ( 3 attending)
```

Sample input #2 (available as file “test1b.dat”):

```
3 3
1910 1999 1
1998 2061 1
2000 2025 3
```

Sample output #2:

```
Hold reunion in 1998 ( 2 attending)
Hold reunion in 1999 ( 2 attending)
```

Sample input #3 (available as file “test1c.dat”):

```
4 3
1990 1991 2
1990 2027 2
1990 2010 2
2010 2027 2
```

Sample output #3:

```
Insufficient budget
```