



HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP

PROBLEMS SUBMIT STATUS STANDINGS CUSTOM TEST

# B. Kefa and Company

time limit per test: 2 seconds memory limit per test: 256 megabytes

Kefa wants to celebrate his first big salary by going to restaurant. However, he needs company.

Kefa has n friends, each friend will agree to go to the restaurant if Kefa asks. Each friend is characterized by the amount of money he has and the friendship factor in respect to Kefa. The parrot doesn't want any friend to feel poor compared to somebody else in the company (Kefa doesn't count). A friend feels poor if in the company there is someone who has at least d units of money more than he does. Also, Kefa wants the total friendship factor of the members of the company to be maximum. Help him invite an optimal company!

### Input

The first line of the input contains two space-separated integers, n and d ( $1 \le n \le 10^5$ ,  $1 \le d \le 10^9$ ) — the number of Kefa's friends and the minimum difference between the amount of money in order to feel poor, respectively.

Next n lines contain the descriptions of Kefa's friends, the (i+1)-th line contains the description of the i-th friend of type  $m_i$ ,  $s_i$  ( $0 \le m_i$ ,  $s_i \le 10^9$ ) — the amount of money and the friendship factor, respectively.

### Output

Print the maximum total friendship factir that can be reached.

## **Examples**



input	Сору
5 100	
0 7	
11 32	
99 10	
46 8	
87 54	
output	Сору
111	

# Note

In the first sample test the most profitable strategy is to form a company from only the second friend. At all other variants the total degree of friendship will be worse.

In the second sample test we can take all the friends.

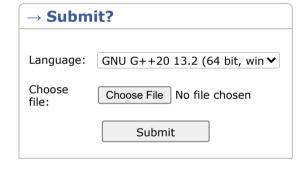
# Codeforces Round 321 (Div. 2) Finished Practice

# Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

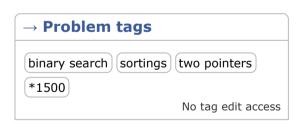
→ Virtual participation

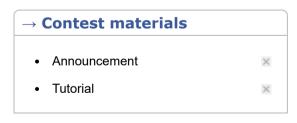
# → Clone Contest to Mashup ∨ You can clone this contest to a mashup. Clone Contest

Start virtual contest



→ Last submissions		
Submission	Time	Verdict
280387223	Sep/09/2024 05:18	Accepted





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The only programming contests Web 2.0 platform
Server time: May/01/2025 16:13:28 (I2).
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