



HOME TOP PROBLEMSET GROUPS RATING EDU API CALENDAR CATALOG CONTESTS GYM HELP 0

Please subscribe to the official Codeforces channel in Telegram via the link https://t.me/codeforces_official.

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

B. Burglar and Matches

time limit per test: 0.5 second memory limit per test: 64 megabytes

A burglar got into a matches warehouse and wants to steal as many matches as possible. In the warehouse there are m containers, in the i-th container there are a_i matchboxes, and each matchbox contains b_i matches. All the matchboxes are of the same size. The burglar's rucksack can hold n matchboxes exactly. Your task is to find out the maximum amount of matches that a burglar can carry away. He has no time to rearrange matches in the matchboxes, that's why he just chooses not more than n matchboxes so that the total amount of matches in them is maximal.

Input

The first line of the input contains integer n ($1 \le n \le 2 \cdot 10^8$) and integer m ($1 \le m \le 20$). The i+1-th line contains a pair of numbers a_i and b_i ($1 \le a_i \le 10^8$, $1 \le b_i \le 10$). All the input numbers are integer.

Output

Output the only number — answer to the problem.

Examples

| input | Сору |
|--------|------|
| 7 3 | |
| 5 10 | |
| 2 5 | |
| 3 6 | |
| output | Сору |
| 62 | |
| | |
| input | Сору |
| 3 3 | |
| 1 3 | |
| 2 2 | |
| 3 1 | |
| output | Сору |

→ Attention

The package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, a solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then the value 800 ms will be displayed and used to determine the verdict.

Codeforces Beta Round 16 (Div. 2 Only)

Finished

Practice



→ Virtual participation

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.

Start virtual contest

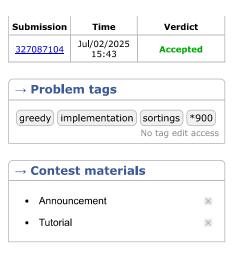
→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

| → Submit? | | |
|--------------|------------------------------|--|
| Language: | GNU G++23 14.2 (64 bit, ms ➤ | |
| Choose file: | Choose File No file chosen | |
| | Submit | |

→ Last submissions



Codeforces (c) Copyright 2010-2025 Mike Mirzayanov
The only programming contests Web 2.0 platform
Server time: Jul/02/2025 19:43:44^{UTC+7} (k1).
Desktop version, switch to mobile version.
Privacy Policy | Terms and Conditions

Supported by



