

Buying New Tablet

Difficulty Rating: 1037

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Problem

###Read problems statements in <u>Hindi</u>, <u>Mandarin Chinese</u>, <u>Russian</u>, <u>Vietnamese</u> and <u>Bengali</u> as well.

Chef decided to buy a new tablet. His budget is B, so he cannot buy a tablet whose price is greater than B. Other than that, he only has one criterion — the area of the tablet's screen should be as large as possible. Of course, the screen of a tablet is always a rectangle.

Chef has visited some tablet shops and listed all of his options. In total, there are N available tablets, numbered 1 through N. For each valid i, the i-th tablet has width W_i , height H_i and price P_i .

Help Chef choose a tablet which he should buy and find the area of such a tablet's screen, or determine that he cannot buy any tablet.

Input

- ullet The first line of the input contains a single integer T denoting the number of test cases. The description of T test cases follows.
- ullet The first line of each test case contains two space-separated integers N and B.
- N lines follow. For each i ($1 \le i \le N$), the i-th of these lines contains three space-separated integers W_i , H_i and P_i .

Output

For each test case, print a single line. If Chef cannot buy any tablet, it should contain the string "no tablet" (without quotes). Otherwise, it should contain a single integer — the maximum area of the screen of a tablet Chef can buy.

Constraints

- $1 \le T \le 100$
- $1 \le N \le 100$
- $1 \le B \le 1,000,000$
- $1 \leq P_i \leq 1,000,000$ for each valid i
- $1 \leq W_i, H_i \leq 10,000$ for each valid i



Submissions

Hints

Sample 1: Input Output 3 12 36 no tablet 344 557 525 26 368 549 1 10

Solution

Ask a Doubt

Explanation:

5510

Statement

 $\textbf{Example case 1:} \ \textit{The first tablet (with screen area } \ 3 \cdot 4 = 12 \textit{)} \ \textit{is the best option for Chef, since Chef cannot afford the second one and the third one has a smaller screen.}$

Example case 2: Chef's budget is 6, but all tablets have higher prices, so Chef cannot buy any tablet.

Example case 3: The price of the only tablet is exactly equal to Chef's budget, so he is able to buy it.