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K Best

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K Best
2.0/2.0 points (graded)

Input file:	k.in
Output file:	k.out
Time limit:	2 seconds
Memory limit:	256 megabytes

Demy has n jewels. Each of her jewels has some value v_i and weight w_i.

Since her husband John got broke after recent financial crises, Demy has decided to sell some jewels. She has decided that she would keep k best jewels for herself.

She decided to keep such jewels that their specific value is as large as possible. That is, denote the specific value of some set of jewels S = {i_1,i_2, ...,i_k} as

$$S(s) = \frac{\sum_{j=1}^{k} v_{i_j}}{\sum_{j=1}^{k} w_{i_j}}$$

Demy would like to select such k jewels that their specific value is maximal possible. Help her to do so.

Input
The first line of the input file contains n – the number of jewels Demy got, and k – the number of jewels she would like to keep ($1 \leq k \leq n \leq 100\ 000$).

The following n lines contain two integer numbers each – v_i and w_i ($0 \leq v_i \leq 10^6$, $1 \leq w_i \leq 10^6$, both the sum of all v_i and the sum of all w_i do not exceed 10^7).

Output

Output k numbers – the numbers of jewels Demy must keep. If there are several solutions, output any one.

Example

k.in	k.out
3 2 1 1 1 2 1 3	1 2
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