Studying Smart

Ali is a student who likes to procrastinate his work. He has an exam for a subject today and he decided to do his revision N minutes before his exam. The subject covers several topics. Ali knows very well for each topic how much marks it contributes and how much time it takes him to study. Assuming that he cannot choose to study any topic partially (i.e. either completely master the topic, or completely discard it), he wants to know the maximum marks that he can attain if he studies the topics optimally within N minutes.

Your task is to help Ali find the maximum marks that he could attain by studying the topics optimally within N minutes.

Input Format

The first line contains two space-separated integers, Z and N. Z denotes the number of topics in the subject and N denotes the remaining minutes before the exam. The subsequent Z lines contains two space-separated integers Ri and Ti. Ri denotes the marks contributed by the i-th topic in the exam, whereas Ti denotes the time taken (in minutes) to revise the i-th topic.
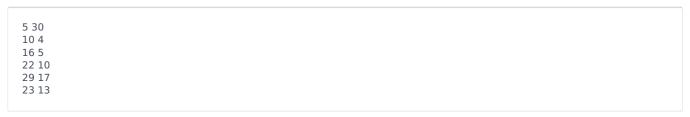
Constraints

- **The number of chapters in the subject, Z**: A positive integer where ($1 <= Z <= 30$)

- **The time remaining for exam, N in minutes**: A positive integer where ($1 <= N <= 150$)

- **The marks contributed by i-th topic, Ri**: A positive integer where ($1 <= Ri <= 25$)

- **The time taken to revise i-th topic, Ti in minutes**: A positive integer where ($1 <= Ti <= 25$)

Output Format

Output the maximum total mark and maximum time, separated by a space.

Sample Input 0

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5 30
10 4
16 5
22 10
29 17
23 13
```

Sample Output 0

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61 28
```

Explanation 0

Ali could attain a maximum mark of 61 (16 + 22 + 23) by studying chapters 2,3, and 5 within 28 (5 + 10 + 13) minutes.