Steal the most Value (12687)

Data Structures Assignment 0
Overviews and Recursive

2021.3.8

NTHU EECS

Description

- You are a thief sneaking into a house that contain N-items with a bag that can hold K-kilograms.
- Each item contains its own value(Vi) and weight(Wi).
- Since your bag is not strong enough to carry over the limit of K(the sum of weight W you carry must be less than K).
- What is the highest value you can carry out from this house?

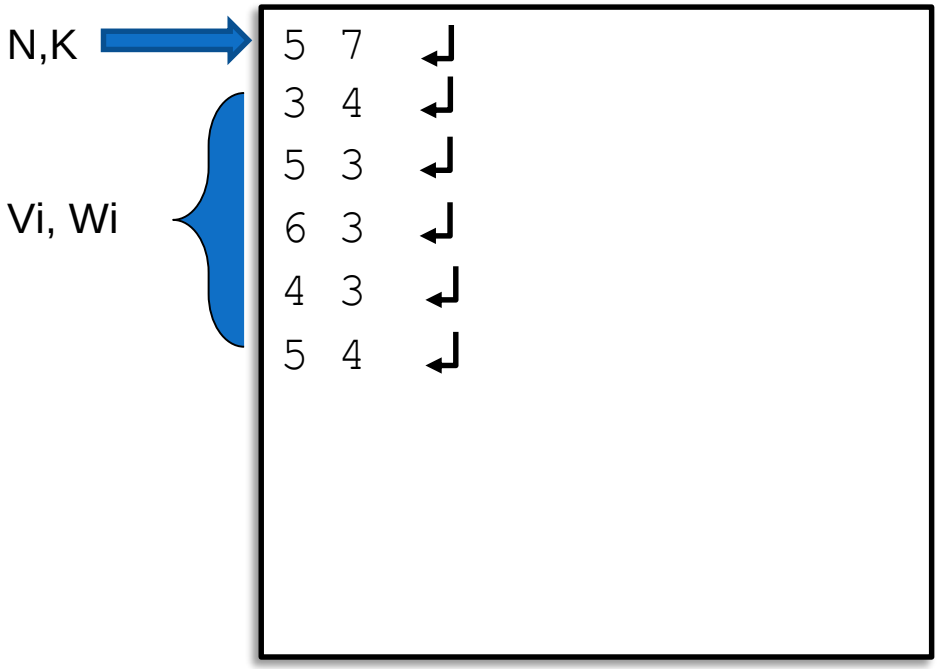
Input

- The first line contains two integers N and K, representing the number of items in the house and how much can the bag hold.
- Each of the following N lines contain two integers Vi and Wi, describing the value and weight of the i-th item.
- It is guaranteed that :
  - $0 \le Vi, Wi \le 10^3$
  - For test case #1~9: $1 \le N \le 20$, $0 \le K \le 10^3$
  - For test case #10: $1 \le N \le 100$, $0 \le K \le 10^3$

Output

- Print the most value the thief can get.
- You need to print a newline **‘\n’** right following your answer!

Sample Input



Sample Output

```
11
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Continue…

Schedule

- HW0 Deadline: 3/21 (Sun.) 23:59
  - Start of Registration: 3/10 (Wed.) 23:59
  - End of Registration: 3/11 (Thu.) 23:59
- Quiz 0: 3/22 (Mon.) 18:30 ~ 20:30