Treasuring

You’re on an exciting expedition to discover treasures, but you can only carry a limited weight in your backpack, each treasure has its own weight and value, and you must decide which treasures to take to maximize the total value without exceeding the backpack’s weight limit.

Input format:

The input consists of two lines:

The first line contains two integers n (1 <= n <= 100) and W (1 <= W <= 1000), where n represents the number of treasures and W represent the maximum weight you backpack car carry.

The second line contains n pairs of integers, each representing the weight and value of a treasure, The weight and value of each treasure are separated by a space. Weight and value are both integers (1 <= weight, value <= 1000).

Output format:

Output a single integer, the maximum total value of treasures that can be carried in the backpack without exceeding its weight limit.

Time limit: 3 Seconds

Example:

Input:

3 50

10 60

20 100

30 120

Output:

220