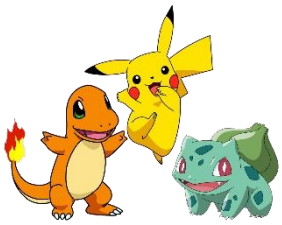
Problem K
Pokemons

Time Limit: 1 seconds

Memory Limit: 64 megabytes



Phidang is on his way to becoming a Pokemon Master. Recently, he has passed Kanto, Johto, Hoenn, and now he is in Sinoh. In order for him to beat all the Gym Masters in Sinoh, he needs to capture many stronger, faster, higher status-point pokemons in this 4^{th} region.

To capture the pokemons, Phidang came to the pokeshop to buy many different types of poke-balls (e.g, Poke Ball, Great Ball, Ultra Ball, Master Ball, Safari Ball, Lure Ball, Moon Ball, Friend Ball, Love Ball, Heavy Ball, Fast Ball, etc.). Each poke-balls type has a particular size (poke-balls of the same type have the same size), and for each type, he bought a certain amount for later use.

Unfortunately, during the battle in the first Gym in Sinoh, Phidang dropped his bag, and all of his poke-balls (the balls are perfect spheres) were broken into two halves. Hence, he has to use his tape to repair their poke-balls.

Given the length of the tape that Phidang has, the radius and the number of the poke-balls of each poke-ball type, Phidang wants to know the maximum number of poke-balls that he can fix regardless of the types.

Input

- The first line contains an integer t ($1 \leq t \leq 10^4$), the length of the tape in centimeters.
- The second line contains an integer b ($1 \leq b \leq 100$), the number of poke-ball types.
- In the next b lines, line i contains two integers s ($1 \leq s \leq 10^3$) – the number of poke-balls of the i^{th} type, and d ($1 \leq d \leq 10^3$) – the radius (in centimeters) of the poke-balls of the i^{th} type.

Output

- The output contains a single integer indicating the maximum number of poke-balls that Phidang can fix using his tape.

Sample Input	Sample Output
1000 2 2 30 3 20	5
2000 4 20 30 1 20 1 15 20 25	13