

Problem C. Wachovia Bank

Time limit	201 ms
Mem limit	1572864 kB
Code length Limit	50000 B
OS	Linux

Danilo Gheyi is a renowned bank robber. He is known worldwide for accomplishing the most profitable bank robbery, in Fortaleza, Ceará. Danilo and his friends dug a tunnel to get into the main chest. There were some bags, with different amounts of money or jewelry and weight. They had to leave about 50% of the total value, since the truck couldn't carry all the bags.

Danilo wasn't caught, and to show that he can do it all again, he is planning a robbery to one of the safer banks in USA -the Wachovia Bank. He wants your help to maximize the amount stolen, avoiding a huge loss as it happened in Fortaleza.

Write a program that, given the maximum weight the truck is able to carry and the information about each bag in the bank, determine the maximum value that Danilo can steal.

Input

The input consists of several instances. There is an integer N ($1 \leq N \leq 200$) in the first line; it stands for the number of instances. The first line of each instance contains two integers, K and M ($8 \leq K \leq 1000$ and $1 \leq M \leq 50$) representing, respectively, the maximum weight the truck can handle and the amount of bags in the bank. The next M lines describe each bag with two integers A and B ($8 \leq A \leq 200$ and $1 \leq B \leq 25$): the weight and the value of the bag, respectively.

Output

For each instance output a sentence "Hey stupid robber, you can get P.", and P represents the maximum value Danilo can steal.

Example

Input:

```
3
34 5
178 12
30 1
13 7
34 8
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87 6
900 1
900 25
100 10
27 16
131 9
132 17
6 5
6 23
56 21
100 25
1 25
25 25
100 2

Output:

Hey stupid robber, you can get 8.
Hey stupid robber, you can get 25.
Hey stupid robber, you can get 99.