

# Programming Contractor

*Filename: contractor*

## **The Problem**

After graduating from UCF with your Computer Science degree, you've decided that you'd like to work for yourself, instead of some big corporation. In starting your business, you find that various companies want to outsource jobs that you can do. For each job, you've become very good at determining the number of days it will take you to finish it. Naturally, each of these jobs comes with a fixed amount of compensation, regardless of how long the work takes. Due to your superior education, you may receive more offers for jobs than you can take. Given the number of days you are willing to work in the year, write a program to determine the maximal amount of money you can make if you accept the appropriate set of jobs.

## **The Input**

The first line of the input file will contain a single positive integer,  $c$  ( $c \leq 1000$ ), representing the number of input cases to analyze. The first line of each input case will have two space separated positive integers,  $n$  ( $n \leq 20$ ), and  $d$  ( $d \leq 365$ ), representing the number of job offers you've received for the year and the number of days you are willing to work during the year, respectively. The next  $n$  lines will each contain two space separated integers,  $d_i$  ( $d_i \leq 365$ ) and  $p_i$  ( $p_i \leq 1000000$ ), representing the number of days and amount of payment, respectively, you would receive if you accepted the  $i^{\text{th}}$  job.

## **The Output**

For each input case, output a single integer representing the maximal amount of money in dollars you can make by taking a set of the possible jobs that you can finish within the number of days given (or fewer days).

## **Sample Input**

```
2
2 5
3 10000
4 8000
3 100
20 20000
40 50000
40 30000
```

## **Sample Output**

```
10000
100000
```