Problem D: Hour To Flower

Filename: `flower`

Time limit: `5 seconds`

You're competing in the hit television game show, "Hour To Flower," hosted by the famous Dude Frosty. The premise of the game is simple.You have 1 hour to collect as many flowers as you can, and present them to Dude Frosty. Whoever gives the bouquet with the highest beauty score wins the grand prize. There are a set number of flowers available, and some of them add to the total beauty score of your bouquet, while others do not contribute directly to beauty score but instead compliment the other flowers, multiplying the total beauty score by a positive integer. However, each hour only consists of a fixed number of minutes, limiting your ability to obtain flowers (the number of minutes is not fixed to 60, as the title of the show is often metaphorical). Your task is to find the maximum beauty score of a bouquet that you could present to Dude Frosty on the show. Due to the layout of the flower-picking area, you can only work towards getting one flower at a time.

Problem
Given the number of minutes you have to pick flowers, as well as the number of minutes each flower takes to obtain and the contribution that each flower makes to the beauty of your bouquet (multiplying or adding beauty), find the maximum beauty score of a bouquet you could create without exceeding the given time limit. You can only pick each flower once.

Input
Input will begin with a single positive integer **C** indicating that **C** test cases follow. The input for each test case will begin with a single line containing three integers, **G, K** and **T** representing the number of flowers which add to the beauty score of the bouquet, the number of flowers which multiply the beauty score of the bouquet, and the number of minutes you have to pick the flowers, respectively.

The following **G** lines each contain two integers, P_i and B_i representing the number of minutes needed to obtain the ith adding flower, and the contribution that the ith adding flower adds to the beauty score of your bouquet, respectively. The final **K** lines of input each contain two integers, P_j and H_j indicating the number of minutes needed to obtain the jth multiplying flower and the amount that the jth multiplying flower multiplies the beauty of a bouquet containing it by, respectively.

Output
For each test case, output a line containing a single integer, the maximum beauty score of a bouquet you can make with an optimal arrangement of flowers that can be obtained within the time limit.

Input Bounds and Corresponding Credit

30 Points	70 Points
$1 \le C \le 15$ $1 \le G \le 1{,}000$ $0 \le K \le 3$ $60 \le T \le 10{,}000$ $0 \le P \le 10{,}000$ $1 \le B \le 10{,}000$ $2 \le H \le 10$	$1 \le C \le 30$ $1 \le G \le 1{,}000$ $0 \le K \le 10$ $60 \le T \le 10{,}000$ $0 \le P \le 10{,}000$ $1 \le B \le 10{,}000$ $2 \le H \le 10$

Samples

Input	Output
1 3 3 60 15 50 15 50 35 101 15 2 10 2 25 3	404