E. YP and Stock

Problem ID: Stock

After years of hard work YP has developed a mathematical model that allows them to predict wether or not a company will be succesful. This obviously gives them a great advantage on the stock market.

In the past, YP made a deal with a big company, which forces them to buy shares of the company according to a fixed schedule. Unfortunately, YP's model has determined that the company will go bankrupt after exactly n days, after which their shares will become worthless.

Still, YP holds a large number of sell options that allows them to sell some of the shares before the company goes bankrupt. However, there is a limit on the number of shares YP can sell every day, and price YP receives for a share may vary from day to day. Therefore, it is not immediately clear when YP should sell their shares to maximize their profit, so they asked you to write a program to calculcate this.

Input

On the first line an integer t: the number of test cases. Then for each test case:

- One line with an integer n: the number of days before the company goes bankrupt.
- n lines with three integers x_i , p_i and m_i : the number of shares YP receives on day i, the (selling) price per share on day i, and the maximum number of shares YP can sell on day i, respectively.
- $1 \le t \le 100$
- $1 \le n \le 100000$
- $0 \le x_i, p_i \le 100$
- $0 \le m_i \le 10000000$

Output

For each test case, output one line with the maximum profit YP can achieve.

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Sample Input 1	Sample Output 1
1	76
6	
4 4 2	
2 9 3	
2 6 3	
2 5 9	
2 2 2	
2 3 3	