BREaK! BREaK! BREaK!

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 seconds
Memory limit:	1024 megabytes

All characters and events in this problem are fictional.

DEvil dXqwq loves money more than life itself. Despite his poor problem-setting skills, a valuable medal from a national contest earned him an invitation to set problems for the 6202 Hyper Demo Ultradash Camp. He spent his fee, then realized the day before the contest that he had forgotten to write any problems!

One night was enough for a seasoned setter like *DEvil dXqwq*. He fired up his problem-copying machine and collected twelve problems from obscure corners of the internet. The next morning, the camp forum was attacking him!

"Why should I get paid the same for writing an original problem as he does for recycling one? Has he considered what his name on a problem is worth compared with mine? It's not even close!" *DEvil dXqwq* was deeply aggrieved. Nobody had promised the contestants quality or originality. Why were they coming after him?

None of this stopped *DEvil dXqwq* from counting his money. He has set problems for T contests. For the i-th contest, he is paid a_i and must provide b_i problems. He values each original problem at c_i and each copied problem at 0. For each contest, find the minimum number of problems he must copy so that his fee is **at least** the total value he assigns to his original problems.

Input

The first line contains an integer T ($1 \le T \le 10^5$), the number of contests.

Each of the following T lines contains three integers a_i, b_i, c_i ($1 \le a_i, b_i, c_i \le 10^9$).

Output

For each contest, output one line containing an integer: the minimum number of problems *DEvil dXqwq* must copy from the internet.

Example

5 12000 12 1700 12000 12 500000 12000 12 1000 10000 3 4000 30000 13 2500	5 12 0 1 1

Note

In the first contest, *DEvil dXqwq* writes 7 original problems and lifts 5. He values the original problems at 11900 in total, less than his fee.

"From now on, neither party nor I will mention, discuss, or make a spectacle of this problem-setting incident, in public or in private. I also ask fellow competitors and internet users not to bring me any more disputes or grievances about it." After the commotion, *DEvil dXqwq* unilaterally declared, in his usual tone, that all was well again, neatly defusing the crisis.