

Programming Exercises from India

Problem 1: Pyramid

Write a C program that produces the following output:

```

      X
     XXX
    XXXXX
   XXXXXXX
  XXXXXXXXX
 XXXXXXXXXX
XXXXXXXXXXXX
```

The program should ask for the number of lines to print (height of the pyramid) prior to printing the output.

Problem 2: Farmer and His Plot

Santosh has a farm at Byteland. He has a very big family to look after. His life takes a sudden turn and he runs into a financial crisis. After giving all the money he has in his hand, he decides to sell some parts of his plots. The specialty of his plot is that it is rectangular in nature. Santosh comes to know that he will get more money if he sells square shaped plots. So keeping this in mind, he decides to divide his plot into minimum possible square plots so that he can get maximum profit out of this.

So your task is to find the minimum number of square plots that can be formed out of the rectangular plot.

Input

The input consists of T number of test cases. T lines follow. Each line consists of two integers N and M which denotes the length and breadth of the rectangle.

Output

Output is a single line which denotes the minimum number of square plots that can be formed

Constraints

$1 \leq T \leq 20$
 $1 \leq M \leq 10000$
 $1 \leq N \leq 10000$

Input :

```
2
10 15
4 6
```

Output :

```
6
6
```

Problem 3: Smallest Numbers of Notes

Consider a currency system in which there are notes of seven denominations, namely, Rs. 1, Rs. 2, Rs. 5, Rs. 10, Rs. 50, Rs. 100.

If the sum of Rs. **N** is input, write a program to computer smallest number of notes that will combine to give Rs. **N**.

Input

The first line contains an integer **T**, total number of testcases. Then follow **T** lines, each line contains an integer **N**.

Output

Display the smallest number of notes that will combine to give **N**.

Constraints

$$1 \leq T \leq 1000$$

$$1 \leq N \leq 1000000$$

Example

Input :

3
1200
500
242

Output :

12
5
7