1. Write a C program to check whether a given number is even or odd.

2. Write a C program to find whether a given year is a leap year or not.

3. Write a C program to find the largest of three numbers.

4. Write a C program to accept a coordinate point in a XY coordinate system and determine in which quadrant the coordinate point lies.

5. Test Data :
   Input the Roll Number of the student :784
   Input the Name of the Student :Ram
   Input the marks of Physics, Chemistry and Computer Application : 70 80 90
   Expected Output :
   Roll No : 784
   Name of Student : Ram
   Marks in Physics : 70
   Marks in Chemistry : 80
   Marks in Computer Application : 90
   Total Marks = 240
   Percentage = 80.00
   Grade = A.

6. Write a program in C to calculate and print the Electricity bill of a given customer. The customer id., name and unit consumed by the user should be taken from the keyboard and display the total amount to pay to the customer. The charge are as follow :

Unit	7. Charge/unit
upto 199	8. @1.20
200 and above but less than 400	9. @1.50
400 and above but less than 600	10. @1.80
600 and above	11. @2.00

   If bill exceeds Rs. 400 then a surcharge of 15% will be charged and the minimum bill should be of Rs. 100/-
   Test Data :
   1001
   Gokul.
   800
   Expected Output :
   Customer IDNO :1001
   Customer Name :Gokul.
   unit Consumed :800

Amount Charges @Rs. 2.00 per unit : 1600.00
Surchage Amount : 240.00
Net Amount Paid By the Customer : 1840.00.

7. Write a program in C to read any day number in integer and display day name in the word.
8. Write a program in C to read any Month Number in integer and display the number of days for this month. Use switch-case.
9.

Sum

You are given three integers aa, bb, and cc. Determine if one of them is the sum of the other two.

Input

The first line contains a single integer tt ($1 \le t \le 9261$) — the number of test cases.

The description of each test case consists of three integers aa, bb, cc ($0 \le a,b,c \le 20$).

Output

For each test case, output "YES" if one of the numbers is the sum of the other two, and "NO" otherwise.

Example

Input

7

1 4 3

2 5 8

9 11 20

0 0 0

20 20 20

4 12 3

15 7 8

output

YES

NO

YES

YES

NO

NO

YES

Note

In the first test case, 1+3=4

In the second test case, none of the numbers is the sum of the other two.

In the third test case, 9+11=20.

10.

Factorise N+M

Hari has a prime number n. Find a prime number mm such that n+m is not prime.

A prime number is a number with exactly 2 factors. The first few prime numbers are 2,3,5,7,11,13,…

In particular, 1 is not a prime number.

Input

Each test contains multiple test cases. The first line contains an integer t ($1 \le t \le 10^4$) — the number of test cases. The following lines contain the description of each test case.

Output

For each test case, output a line containing a prime number m ($2 \le m \le 10^5$) such that n+m is not prime. It can be proven that under the constraints of the problem, such mm always exists.

If there are multiple solutions, you can output any of them.

Example

Input

3

7

2

75619

Output

2

7

47837

Note

In the first test case, m=2, which is prime, and n+m=7+2=9, which is not prime.

In the second test case, m=7, which is prime, and n+m=2+7=9 which is not prime.

In the third test case, m=47837, which is prime, and n+m=75619+47837=123456 which is not prime.