COMPUTER SCIENCE
PROGRAMMING QUESTION

TYPE 1: FLOW CONTROL & OPERATORS **LEVEL 1**

1. Problem Description:

A team from the Royal Squatraclub had planned to conduct a rally to create awareness among the Pune people to donate eyes. They conducted the rally successfully.

Many of the Pune people realized it and came forward to donate their eyes to the nearby Hospitals.

The eligibility criteria for donating eyes is people should be above 18 and his her weight should be above 40.

There was a huge crowd and the staff in the eye donation centre found it difficult to manage the crowd.

So they decided to keep a system and ask the people to enter their age and weight in a system.

If a person is eligible he /she will be allowed inside.

Help the blood bank staffs to pick the eligible people for blood donation.

Constraints:

$1 \leq$ people age ≤ 120

$25 \leq$ weight ≤ 85

Input format:

Only line of input has two integer values separated by a space representing people age and weight.

Output Format:

Print as either “Eligible for Donation” or "Not Eligible for Donation" based on the condition.

Test Case 1

INPUT (STDIN)

```
39
52
```

EXPECTED OUTPUT

```
Eligible for Donation
```

Test Case 2

INPUT (STDIN)

```
14
89
```

EXPECTED OUTPUT

```
Not Eligible for Donation
```

2.

Problem Description:

Caleb and Salima are living in interior village of Nilgais.Since government of Tamil Nadu announced lockdown both of them struck in the village and its been very hard for them to spend their day because of the lack of friends in the village.So they planned to play a technical game on Lockdown days.

The rule of the game is simple :

When one among Caleb and Salima say two numbers to the other.The person at the receiving end need to tell the difference between the numbers if the first number is greater than the second number otherwise they have to tell the sum of those two numbers.

Constraints:

$-1000 \leq n1 \leq 1000$

$-1000 \leq n2 \leq 1000$

Input Format:

Each line of the input has one number of type integer separated by Enter key representing the first and second number.

Output Format:

Print the output based on the condition satisfied by the two input numbers .

Test Case 1

INPUT (STDIN)

```
1746
1429
```

EXPECTED OUTPUT

```
317
```

Test Case 2

INPUT (STDIN)

```
1921
3238
```

EXPECTED OUTPUT

```
5159
```

3.

Problem Description:

The Election Commission of India distributed the voter ID to all eligible citizens.

But Amira didn't received a Voter ID on time.

So, she gets confused about her eligibility for voting?

Can you clarify her doubt?

Condition for Eligibility as per Election Commission of India is

(i) Eligible if age >=18

(i) Not Eligible if age <18

Constraints :

$1 \leq age \leq 100$

Input Format:

The only line of input has single value of type integer representing age.

Output Format:

Print as Eligible or Not Eligible based on the eligibility criteria in a single line. Refer the Testcases.

Test Case 1

INPUT (STDIN)

```
16
```

EXPECTED OUTPUT

```
Not Eligible
```

Test Case 2

INPUT (STDIN)

```
67
```

EXPECTED OUTPUT

```
Eligible
```

4.

Problem Description:

Abilash and Yazhini are friends who love to go for outing every month.

Normally they will plan to travel on 3 weekends if the month has 31 days and for 2 weekends if a month has 30 days.

If a month has less than 30 days they will travel for only one weekend.

They feel it will be better for them if know in prior the number of days a particular month has so that they can book the travel tickets in advance.

Can you help them with the number of days a month has if the number of the month (Ex. "1" for January and "3" for March) is provided?

Constraints:

1<=month<=12

Input Format :

Only line of input has a single digit of type integer representing the month number.

Output Format:

Print the number of days in a month based on the condition.

Test Case 1

INPUT (STDIN)

```
9
```

EXPECTED OUTPUT

```
30 days
```

Test Case 2

INPUT (STDIN)

```
2
```

EXPECTED OUTPUT

```
28/29 days
```

5.

Problem Description:

Aadi and Tara travel frequently around the world.

Since most of their travels are unplanned they usually book the rooms for stay nearer to the locality they are going to visit.

Functional Description:

In most of the tourist places the room rent is 20% high during peak seasons [April and May].

Can you help them with the Room Rent Estimation Portal using flow control concept that provides the total rent to pay if the details such as Month,Room Rent and Total days of stay are provided?

Constraints:

$1 \leq month \leq 12$

$500 \leq roomrent \leq 5000$

$1 \leq numofdays \leq 15$

Input Format:

The first line of the input has a single integer which corresponds to the number of the month. [Ex. January is 1, and March is 3].

The second line of the input has a single floating point number which corresponds to the room rent per day.

The third line of the input has a single integer which corresponds to the number of days stayed in the hotel.

Output Format:

Print the total room rent to be paid with two values after decimal point.

Refer sample testcases for Format Specification.

Test Case 1

INPUT (STDIN)

```
7
4650.00
11
```

EXPECTED OUTPUT

```
Rs.51150.00
```

Test Case 2

INPUT (STDIN)

```
4
3800.00
9
```

EXPECTED OUTPUT

```
Rs.41040.00
```

6.

Problem Description:

Arulmozhivarman the famous skill trainer planned to conduct a quiz program for his followers in Facebook.

Arulmozhivarman will give them 2 numbers and the operator. Based on the number and the operator they have to do certain operation on the numbers and have to print the result.

Constraints:

Operators will be one among the following : + , - , * , /

1<=n1<=500

1<=n2<=500

Input Format:

1. First line of the input has a operator representing the operation need to be performed
2. Second and third line of the input has float values separated by a enter key representing n1 and n2.

Output Format:

Print the result after performing certain operation on the input numbers. And if other symbols are given as operator then display "Invalid input".

Test Case 1

INPUT (STDIN)

```
*
77.6
54.9
```

EXPECTED OUTPUT

```
4260.24
```

Test Case 2

INPUT (STDIN)

```
$
98.1
14.3
```

EXPECTED OUTPUT

```
Invalid Input
```

7.

Problem Description:

Laasya looking at the friends birthday list on a social media site likes to find if the particular person's birthday year is a leap year or not.

Since many will have the same doubt she decides to automate the task by writing the code snippet for finding the same but she don't know the logic to write it.

Can you help Laasya to accomplish her task?

Constraints:

1 <= year<= 10000

Input Format:

The Single Line containing the integer value representing year.

Output Format:

Print as either NOT A LEAP YEAR or LEAP YEAR after checking the year.

	Test Case 1
	INPUT (STDIN)
	`2004`
	EXPECTED OUTPUT
	`LEAP YEAR`
	
	Test Case 2
	INPUT (STDIN)
	`1994`
	EXPECTED OUTPUT
	`NOT A LEAP YEAR`

8.	**Problem Description:** Yasir a techie working in a military camp was checking the landmine as per their sequence of numbers. Whatever the number the major gives yasir has to : Check if (number < 0), then need to print as negative. Check if(number > 0), then need to print as positive. **Functional Description:** But Major Simon imposes a strict constraint that he should use If else concept to complete the task. Since he doesn't know the if else concept he is frustrated. Can you help him to complete his task? **Constraints :** 1 ≤ num ≤ 500 -1 ≤ num ≤ -500 **Input Format:** Single Line Containing the value of number given by Major Simon **Output Format:** Print either POSITIVE or NEGATIVE based on the input of Major Simon.

	Test Case 1
	INPUT (STDIN)
	`89`
	EXPECTED OUTPUT
	`POSITIVE`
	
	Test Case 2
	INPUT (STDIN)
	`-177`
	EXPECTED OUTPUT
	`NEGATIVE`

9.	**Problem Description:** Simon was working in a Casa Grande. His superior officer ordered him to construct a new building by incorporating equilateral, scalene and isosceles triangular shapes wherever possible. But he has no idea about equilateral, scalene and isosceles triangle. Can you clarify his doubt by giving him the correct category of triangle based on the values of sides given by simon? **Functional Description :** If All the Sides are Equal then it is a Equilateral Triangle If two Sides are Equal then it is a Isosceles Triangle If no Sides are Equal then it is a Scalene Triangle **Constraints:** 1<=side1<=100 1<=side2<=100 1<=side3<=100 **Input Format:** Each line has values of type integer separated by enter key representing 'side1','side2' and 'side3'. **Output Format:** Print as either equilateral or scalene or isosceles triangle based on the values of the sides.

Test Case 1

INPUT (STDIN)

```
25
29
33
```

EXPECTED OUTPUT

```
Scalene triangle
```

Test Case 2

INPUT (STDIN)

```
40
31
40
```

EXPECTED OUTPUT

```
Isosceles triangle
```

10.

Problem Description:

Caleb and Irfan are purchasing apples which were priced according to their size. But their budget is minimum.

So they plan to choose one small, one medium and one large apple so that it will fit in their budget.
So can you help them choose the right apple by creating a logic by naming three apples they choose as apple1,apple2,apple3.

Then check the condition if apple2 is greater than apple1 and apple3 is greater than apple2.

Constraints:

1≤ apple1 ≤600

1≤ apple2 ≤600

1≤ apple3 ≤600

Input format:

First Line: Single number of type integer representing the size of apple1

Second Line: Single number of type integer representing the size of apple2

Third Line: Single number of type integer representing the size of apple3

Output Format:
Print as "Fit into Budget" or "Doesn't fit into Budget" based on the condition.

Test Case 1

INPUT (STDIN)

```
380
170
429
```

EXPECTED OUTPUT

```
Doesn't fit into Budget
```

Test Case 2

INPUT (STDIN)

```
102
237
398
```

EXPECTED OUTPUT

```
Fit into Budget
```