EASY

1) Find the maximum among four numbers.
Input: 4 85 75 36
Output: 85

2) You have three-digit number. Change the order first and second digit.
Input: 123
Output: 213

3) You have x and y. Determine the quarter of coordinates
belongs to these numbers.
Input: 2 5
Output: 1 quarter
Input: -3 -6
Output: 3 quarter
4) You have three numbers. Count the number of positive, zero and
negative elements.
Input: 1 -2 0
Output: 1 positive elements 1 negative elements 1 zero elements

5) Find the maximum among three digits in number.
Input: 256
Output: 6

For homework(6-10)

6) You have three-digit number n. Change the order second and third digit.
Input: 123
Output: 132(it must be 1 number, don't print each digit!)

7) Calculate the purchase price with the discount. 5% discount is provided
if the purchase amount more than 5000 tenge and 10% if more than 10000
tenge.
Input: 12000
Output: 10800

8) You have a three digit natural number n. You need to check whether the sum of digits of this number
is two digit number or not.
Input: 888
Output: Yes(Because 8+8+8 is 24. 24 has two digit)

9) You have three-digit number. You need to check whether the multiply of digits of
these numbers are three-digit or not.
Input:245 -->Output: No(because 2*4*5=40, not three-digit)
Input:555 -->Output: Yes(because 5*5*5=125 is three-digit)

10) You have three-digit number. You need to check whether the any of digits of these numbers are equal to 9.
Input:245 -->Output: No(because no any 9 digit)
Input:295 -->Output: Yes(because 9 is included in this number)

MEDIUM

1) You have a number n. Print this:
1
12
123
1234
12345

2) You have natural number n. Print numbers like this:
1
22
333
4444
55555
...
nnnnnnn

3) Find the sum (1/1+2/3+3/5+⋯)
Input: 2
Output: 1.6666666
Input: 6
Output: 3.9391053

4) Find the sum (1/5+2/10+3/15+⋯)
Input: 3
Output: 0.6
Input: 45
Output: 9.0

5) Find average and the quantity of numbers before 0.
Input: 3 8 9 0
Output: 3, 6.679

For homework(6-10)

6) You have a price for 1 kg sweets. Calculate price for each number 0.1 to 1 with step 0.1.
Input: 1000
Output:

0.1 kg is 100 tg
0.2 kg is 200 tg
....
1.0 kg is 1000 tg

7) Find the sum of the series (1*1) + (2*2) + (3*3) + (4*4) + (5*5) + ... + (n*n)
Input: 5
Output: 55 (1*1 = 1, 2*2 = 4, 3*3 = 9, 4*4 = 16, 5*5 = 25).

8) Find the sum of the series (1) + (1+2) + (1+2+3) + (1+2+3+4) + ... + (1+2+3+4+...+n).
Input: 5
Output: 35 (1 = 1, 1+2 = 3, 1+2+3 = 6, 1+2+3+4 = 10, 1+2+3+4+5 = 15).

9) Find the sum 8+88+888+8888+88888+..(n times)
Input: 3
Output: 984

10) You have a number n. Print this:
Input: 4
Output:
1
2 3
4 5 6
7 8 9 10

HARD

1) Print all prime numbers between n and m
Input: 10 25
Output: 11 13 17 19 23

2) You have a number n. Find all factors of the number:
Input:32
Output: 2 4 8 16 32

3) Convert decimal number to binary
Input: 5
Output: 101

4) You have a variable x and n. Find the sum:x - x^3 + x^5 + ...
Input:2 5
Output: 410(2+(-8)+32+(-128)+512)

5) Check whether number is palindrom or not.(n is any integer number)
Input: 2559

Output: No
Input: 155551
Output: Yes

For homework(6-10)

6) Find the reverse version of the number.
Input: 12345
Output: 54321

Input: 123456789
Output: 987654321

7) Find the sum of first and last digit of the number.
Input: 12345
Output: 6(1+5)
Input: 11111111111
Output: 2(1+1)

8) You need to find sum of n!!.
if n = 5, !!+5!! = 1+3+15=19
if n = 4, 2!!+4!! = 2+8=10. 1!!+3

9) Find the number of prime numbers between 1 and n
Input: 20
Output: 8
//E.g. (2,3,5,7,11,13,17,19)v

10)

В доме живет N жильцов. Однажды решили провести перепись всех жильцов данного дома и составили список, в котором указали возраст и пол каждого жильца. Требуется найти номер самого старшего жителя мужского пола.

Входные данные

Во входном файле INPUT.TXT в первой строке задано натуральное число N – количество жильцов (N ≤ 100). В последующих N строках располагается информация о всех жильцах: каждая строка содержит два целых числа: V и S – возраст и пол человека (1 ≤ V ≤ 100, S – 0 или 1). Мужскому полу соответствует значение S=1, а женскому – S=0.

Выходные данные

Выходной файл OUTPUT.TXT должен содержать номер самого старшего мужчины в списке. Если таких жильцов несколько, то следует вывести наименьший номер. Если жильцов мужского пола нет, то выведите -1.

№	INPUT.TXT	OUTPUT.TXT
1	4 25 1 70 1 100 0 3 1	2
2	2 25 0 25 1	2

```
import java.util.Scanner;

public class Main {
```

```java
    public static void main(String[] args) {
     Scanner sc = new Scanner(System.in);
     int N = sc.nextInt();
     int  max = 0, index = -1;
     for(int i=1; i<=N; i++){// N = 5
         int V = sc.nextInt();
         int S = sc.nextInt();

         if(V>max && S==1){
             max=V;
             index = i;
         }
     }
        System.out.println(index);

    }
}
```