***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, 6.67

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, 1!!+3!!+5!! = 1+3+15=19

if n = 4, 2!!+4!! = 2+8=10.

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)

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 {

**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);

    }

}