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<b>Completed</b>	Monday, 3 November 2025, 12:03 PM
<b>Duration</b>	1 hour 27 mins

**Question 1**

Correct

In a betting game involving the roll of a dice, Sandeep gains Rs.X if an odd number turns up and he loses Rs.Y on the face of the dice in a certain number of games is passed as input. The values of X and Y are also passed as the output.

**Input Format:**

First line will contain the numbers shown on the face of the dice separated by one or more spaces.

Second line will contain the value of X

Third line will contain the value of Y

**Output Format:**

The net gain or loss (loss will be a negative value)

**Sample Input/Output:****Example 1:**

Input:

1 4 3  
10  
30

Output:

-10

**Explanation:**

He gains 20 rupees for 1 and 3 and loses 30 rupees for 4. Hence there is a net loss of  $20 - 30 = -10$

**Example 2:**

Input:

4 6 1 2 1  
50  
25

Output:

25

He gains 100 rupees for 1,1 and loses 75 rupees for 4,6,2. Hence there is a net gain of  $100 - 75 = 25$

**For example:**

Input	Result
1 4 3 10 30	-10
4 6 1 2 1 50 25	25

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int dice[100],n=0,X,Y,val,total=0;
5     while(scanf("%d",&val)){
6         dice[n++]=val;
7         if(getchar()=='\n')
8             break;
9     }
10    scanf("%d",&X);
11    scanf("%d",&Y);
12    for(int i=0;i<n;i++){
13        if(dice[i]%2==0)
14            total-=Y;
15        else
16            total+=X;
17    }
18    printf("%d",total);
19    return 0;
20 }
```

	Input	Expected	Got	
✓	1 4 3 10 30	-10	-10	✓

	Input	Expected	Got	
✓	4 6 1 2 1 50 25	25	25	✓

Passed all tests! ✓

**Question 2**

Correct

Given a set of numbers where all other numbers are multiple of the smallest number, the program must find

**Input Format:**

First line will contain the integer value N representing how many numbers are passed as input.

Next N lines will have the numbers.

**Output Format:**

First line will contain the count of common factors C.

**Constraints:**

N will be from 2 to 20.

**Sample Input/Output:****Example 1:****Input:**

2

100

75

**Output:**

2

**Explanation:**

The common factors excluding 1 are 5,25. Hence output is 2

**Example 2:****Input:**

3

10

20

30

Output:

3

**For example:**

Input	Result
2	2
100	
75	
3	3
10	
20	
30	

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int gcd(int a, int b){
3     return b==0 ? a: gcd(b, a % b);
4 }
5 int main(){
6     int n, i,g ,x , count = 0;
7     scanf("%d", &n);
8     scanf("%d", &g);
9     for(i =1; i < n; i++){
10         scanf("%d",&x);
11         g = gcd(g, x);
12     }
13     for(i =2; i <=g; i++)
14         if(g % i == 0) count++;
15     printf("%d", count);
16     return 0 ;
17 }
```

	Input	Expected	Got	
④	2 100 75	2	2	④

	Input	Expected	Got	
1	3	3	3	✓
	10			
	20			
	30			

Passed all tests! ✓

Question **3**

Correct

Two whole numbers N1 and N2 are passed as input. The program must print the number of primes present between N1 and N2.

**Input Format:**

First line will contain the value of the first number N1

Second line will contain the value of the second number N2

**Output Format:**

First line will contain the count of prime numbers between N1 and N2

**Sample Input/Output:**

**Example 1:**

Input:

6142

6200

Output:

6

Explanation:

The prime numbers within the range 6142 to 6200 are 6143, 6151, 6163, 6173, 6197, 6199

**Example 2:**

Input:

38

70

Output:

7

Explanation:

The prime numbers within the range 38 to 70 are 41, 43, 47, 53, 59, 61, 67

**For example:**

Input	Result
6142	6
6200	
38	7
70	

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int n1,n2,i,j,count=0;
5     scanf("%d %d",&n1,&n2);
6     for(i=n1;i<=n2;i++){
7         if(i<2) continue;
8         int prime=1;
9         for(j=2;j*j<=i;j++){
10            if(i%j==0){
11                prime=0;
12                break;
13            }
14        }
15        if(prime)
16            count++;
17    }
18    printf("%d",count);
19    return 0;
20 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
<input checked="" type="checkbox"/>	6142 6200	6	6	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	38 70	7	7	<input checked="" type="checkbox"/>

Passed all tests!

**Question 4**

Correct

An integer value N is passed as the input. The program must print the first N terms in the Fibonacci sequence.

**Input Format:**

The first line denotes the value of N.

**Output Format:**

The first N terms in the Fibonacci sequence (with each term separated by a space)

**Boundary Conditions:**

$3 \leq N \leq 50$

**Example Input/Output 1:**

Input:

5

Output:

0 1 1 2 3

**Example Input/Output 2:**

Input:

10

Output:

0 1 1 2 3 5 8 13 21 34

**For example:**

Input	Result
5	0 1 1 2 3
10	0 1 1 2 3 5 8 13 21 34

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int n;
5     scanf("%d",&n);
6 }
```

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	5	0 1 1 2 3	0 1 1 2 3	✓
✓	10	0 1 1 2 3 5 8 13 21 34	0 1 1 2 3 5 8 13 21 34	✓

Passed all tests! ✓

**Question 5**

Correct

The runs scored by a cricket team in the first and second innings of N test cricket matches are passed as input. The first line denotes the value of N. Next N lines will contain the first and second innings score separated by a space.

**Input Format:**

The first line denotes the value of N.

Next N lines will contain the first and second innings score separated by a space.

**Output Format:**

The first line contains the average of first innings score.

The second line contains the average of second innings score.

**Boundary Conditions:**

$2 \leq N \leq 20$

The value of the runs will be from 0 to 1000.

**Example Input/Output 1:**

Input:

3  
250 200  
450 300  
200 250

Output:

300.00  
250.00

**For example:**

Input	Result
3	300.00
250 200	250.00
450 300	
200 250	

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
```

	Input	Expected	Got	
✓	3 250 200 450 300 200 250	300.00 250.00	300.00 250.00	✓

Passed all tests! ✓

**Question 6**

Correct

A number N is passed as the input. The program must print the next immediate prime number.

**Input Format:**

The first line will contain N.

**Output Format:**

The first line will contain the integer value of next immediate prime number.

**Boundary Conditions:**

$1 \leq N \leq 999999$

**Example Input/Output 1:**

Input:

11

Output:

13

**Example Input/Output 2:**

Input:

2

Output:

3

**For example:**

Input	Result
11	13
2	3

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int isPrime(int n){
3     if(n<2) return 0;
4     for(int i=2;i*i<=n;i++){
5         if(n%i==0)
6             return 0;
7     }
8     return 1;
9 }
10 int main(){
11     int n;
12     scanf("%d",&n);
13     n++;
14     while(!isPrime(n)){
15         n++;
16     }
17     printf("%d",n);
18     return 0;
19 }
```

	Input	Expected	Got	
✓	11	13	13	✓
✓	2	3	3	✓

Passed all tests! ✓

Question **7**

Correct

The program must accept two integers X and Y and print the odd integers between them.

**Input Format:**

The first line denotes the value of X.  
The second line denotes the value of Y.

**Output Format:**

The first line contains the odd integers between X and Y separated by a space.

**Boundary Conditions:**

-999999 <= X <= 999999  
X < Y <= 999999

**Example Input/Output 1:**

Input:

1  
11

Output:

3 5 7 9

**Example Input/Output 2:**

Input:

24  
30

Output:

25 27 29

**For example:**

Input	Result
1	3 5 7 9
11	
24	25 27 29
30	

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int x,y;
5     scanf("%d %d",&x,&y);
6     for(int i=x+1;i<y;i++){
7         if(i%2!=0)
8             printf("%d ",i);
9     }
10    return 0;
11 }
```

	Input	Expected	Got	
✓	1 11	3 5 7 9	3 5 7 9	✓
✓	24 30	25 27 29	25 27 29	✓

Passed all tests! ✓

Question **8**

Correct

An integer value N is passed as the input. The program must print YES if N is prime number. Else the program must print NO.

**Input Format:**

The first line denotes the value of N.

**Output Format:**

YES or NO based on if N is a prime number or not. (The OUTPUT is CASE SENSITIVE).

**Boundary Conditions:**

$2 \leq N \leq 9999999$

**Example Input/Output 1:**

Input:

19

Output:

YES

**Example Input/Output 2:**

Input:

189210

Output:

NO

**For example:**

Input	Result
19	YES
189210	NO

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int n,i,isPrime=1;
5     scanf("%d",&n);
6 }
```

	Input	Expected	Got	
✓	19	YES	YES	✓
✓	189210	NO	NO	✓

Passed all tests! ✓

Question **9**

Correct

The program must accept N integers and print the second largest value among the N integers.

**Input Format:**

The first line denotes the value of N.  
Next N lines will contain the N integer values.

**Output Format:**

The first line contains the second largest integer.

**Boundary Conditions:**

$2 \leq N \leq 100$   
The value of the integers will be from -999999 to 999999.

**Example Input/Output 1:**

Input:

3  
100  
2200  
345

Output:

345

**Example Input/Output 2:**

Input:

6  
-23  
-256  
-87  
-90  
-11019  
-2

Output:

-23

**For example:**

Input	Result
-------	--------

Input	Result
3 100 2200 345	345
6 -23 -256 -87 -90 -11019 -2	-23

**Answer:** (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int n,i,num;
4     int largest=-10000000,second=-10000000;
5     scanf("%d",&n);
6     for(i=0;i<n;i++){
7         scanf("%d",&num);
8         if(num>largest){
9             second=largest;
10            largest=num;
11        } else if(num>second && num<largest){
12            second=num;
13        }
14    }
15    printf("%d",second);
16    return 0;
17 }
```

	Input	Expected	Got	
✓	3 100 2200 345	345	345	✓

	Input	Expected	Got	
✓	6 -23 -256 -87 -90 -11019 -2	-23	-23	✓

Passed all tests! ✓