

Status	Finished
Started	Wednesday, 15 October 2025, 12:20 PM
Completed	Wednesday, 15 October 2025, 12:55 PM
Duration	35 mins 56 secs
Marks	3.00/3.00
Grade	10.00 out of 10.00 (100%)

Question 1

Correct

Mark 1.00 out of 1.00

Objective

This is a simple challenge to help you practice printing to stdout.|

We're starting out by printing the most famous computing phrase of all time! In the editor below, use either printf or cout to print the string **Hello, World!** to stdout.

Input Format

You do not need to read any input in this challenge.

Output Format

Print **Hello, World!** to stdout.

Sample Output

Hello, World!

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     printf("Hello, World!");
4     return 0;
5 }
6
```

	Expected	Got	
✓	Hello, World!	Hello, World!	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

Objective

This challenge will help you to learn how to take a character, a string and a sentence as input in C.

To take a single character **ch** as input, you can use `scanf("%c", &ch);` and `printf("%c", ch)` writes a character specified by the argument char to stdout:

```
char ch;  
scanf("%c", &ch);  
printf("%c", ch);
```

This piece of code prints the character **ch**.

Task

You have to print the character, **ch**.

Input Format

Take a character, **ch** as input.

Output Format

Print the character, **ch**.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>  
2 int main()  
3 {  
4     char ch;  
5     scanf("%c",&ch);  
6     printf("%c",ch);  
7     return 0;  
8 }  
9
```

	Input	Expected	Got	
✓	c	c	c	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

Objective

The fundamental data types in c are int, float and char. Today, we're discussing int and float data types.

The printf() function prints the given statement to the console. The syntax is printf("format string",argument_list);. In the function, if we are using an integer, character, string or float as argument, then in the format string we have to write %d (integer), %c (character), %s (string), %f (float) respectively.

The scanf() function reads the input data from the console. The syntax is scanf("format string",argument_list);. For ex: The scanf("%d",&number) statement reads integer number from the console and stores the given value in variable **number**.

To input two integers separated by a space on a single line, the command is scanf("%d %d", &n, &m), where **n** and **m** are the two integers.

Task

Your task is to take two numbers of int data type, two numbers of float data type as input and output their sum:

1. Declare **4** variables: two of type int and two of type float.
2. Read **2** lines of input from stdin (according to the sequence given in the 'Input Format' section below) and initialize your **4** variables.
3. Use the + and - operator to perform the following operations:
 - * Print the sum and difference of two int variable on a new line.
 - * Print the sum and difference of two float variable rounded to one decimal place on a new line.

Input Format

The first line contains two integers.

The second line contains two floating point numbers.

Constraints

- **1 ≤ integer variables ≤ 10⁴**
- **1 ≤ float variables ≤ 10⁴**

Output Format

Print the sum and difference of both integers separated by a space on the first line, and the sum and difference of both float (scaled to **1** decimal place) separated by a space on the second line.

Sample Input

```
10 4  
4.0 2.0
```

Sample Output

```
14 6  
6.0 2.0
```

Explanation

When we sum the integers **10** and **4**, we get the integer **14**. When we subtract the second number **4** from the first number **10**, we get **6** as their difference.

When we sum the floating-point numbers **4.0** and **2.0**, we get **6.0**. When we subtract the second number **2.0** from the first number **4.0**, we get **2.0** as their difference.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>  
2 int main()  
3 {  
4     int a,b;  
5     float x,y;  
6     scanf("%d%d",&a,&b);  
7     scanf("%f%f",&x,&y);  
8     printf("%d %d\n",a+b,a-b);  
9     printf("%.1f %.1f\n",x+y,x-y);  
10    return 0;  
11 }
```

	Input	Expected	Got	
✓	10 4 4.0 2.0	14 6 6.0 2.0	14 6 6.0 2.0	✓
✓	20 8 8.0 4.0	28 12 12.0 4.0	28 12 12.0 4.0	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Status	Finished
Started	Wednesday, 22 October 2025, 12:01 PM
Completed	Wednesday, 22 October 2025, 12:23 PM
Duration	21 mins 54 secs
Marks	3.00/3.00
Grade	10.00 out of 10.00 (100%)

Question 1

Correct

Mark 1.00 out of 1.00

Write a program to input a name (as a single character) and marks of three tests as m1, m2, and m3 of a student considering all the three marks have been given in integer format.

Now, you need to calculate the average of the given marks and print it along with the name as mentioned in the output format section.

All the test marks are in integers and hence calculate the average in integer as well. That is, you need to print the integer part of the average only and neglect the decimal part.

Input format :

Line 1 : Name(Single character)

Line 2 : Marks scored in the 3 tests separated by single space.

Output format :

First line of output prints the name of the student.

Second line of the output prints the average mark.

Constraints

Marks for each student lie in the range 0 to 100 (both inclusive)

Sample Input 1 :

A

3 4 6

Sample Output 1 :

A

4

Sample Input 2 :

T

7 3 8

Sample Output 2 :

T

6

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     char name;
5     int m1,m2,m3,avg;
6     scanf("%c",&name);
7     scanf("%d %d %d",&m1,&m2,&m3);
8     avg=(m1+m2+m3)/3;
9     printf("%c\n",name);
10    printf("%d\n",avg);
11    return 0;
12 }
```

	Input	Expected	Got	
✓	A 3 4 6	A 4	A 4	✓
✓	T 7 3 8	T 6	T 6	✓
✓	R 0 100 99	R 66	R 66	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

Some C data types, their format specifiers, and their most common bit widths are as follows:

- *Int* ("%d"): 32 Bit integer
- *Long* ("%ld"): 64 bit integer
- *Char* ("%c"): Character type
- *Float* ("%f"): 32 bit real value
- *Double* ("%lf"): 64 bit real value

Reading

To read a data type, use the following syntax:

```
scanf(`formatSpecifier`, &val)
```

For example, to read a *character* followed by a *double*:

```
char ch;  
double d;  
scanf("%c %lf", &ch, &d);
```

For the moment, we can ignore the spacing between format specifiers.

Printing

To print a data type, use the following syntax:

```
printf(`formatSpecifier`, val)
```

For example, to print a *character* followed by a *double*:

```
char ch = 'd';  
double d = 234.432;  
printf("%c %lf", ch, d);
```

Note: You can also use *cin* and *cout* instead of *scanf* and *printf*, however, if you are taking a million numbers as input and printing a million lines, it is faster to use *scanf* and *printf*.

Input Format

Input consists of the following space-separated values: *int*, *long*, *char*, *float*, and *double*, respectively.

Output Format

Print each element on a new line in the same order it was received as input. Note that the floating point value should be correct up to 3 decimal places and the double to 9 decimal places.

Sample Input

3 12345678912345 a 334.23 14049.30493

Sample Output

3
12345678912345
a
334.230
14049.304930000

Explanation

Print *int 3*,
followed by *long 12345678912345*,
followed by *char a*,
followed by *float 334.23*,
followed by *double 14049.30493*.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int i;
5     long l;
6     char c;
7     float f;
8     double d;
9     scanf("%d %ld %c %f %lf",&i,&l,&c,&f,&d);
10    printf("%d\n", i);
11    printf("%ld\n", l);
12    printf("%c\n", c);
13    printf("%.3f\n",f);
14    printf("%.9lf\n",d);
15    return 0;
16 }
17 }
```

	Input	Expected	Got	
✓	3 12345678912345 a 334.23 14049.30493	3 12345678912345 a 334.230 14049.304930000	3 12345678912345 a 334.230 14049.304930000	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

Write a program to print the ASCII value and the two adjacent characters of the given character.

Input

E

Output

69

D F

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     char ch;
5     scanf("%c",&ch);
6     printf("%d\n",ch);
7     printf("%c %c\n",ch-1,ch+1);
8     return 0;
9 }
10
11 }
```

	Input	Expected	Got	
✓	E D F	69 D F	69 D F	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Status	Finished
Started	Wednesday, 22 October 2025, 12:25 PM
Completed	Wednesday, 22 October 2025, 12:55 PM
Duration	30 mins 24 secs

Question 1

Correct

Many people think about their height in feet and inches, even in some countries that primarily use the metric system. Write a program that reads a number of feet from the user, followed by a number of inches. Once these values are read, your program should compute and display the equivalent number of centimeters.

Hint:

One foot is 12 inches.

One inch is 2.54 centimeters.

Input Format

First line, read the number of feet.

Second line, read the number of inches.

Output Format

In one line print the height in centimeters.

Note: All of the values should be displayed using two decimal places.

Sample Input 1

5 6

Sample Output 1

167.64

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int feet,inch;
5     float cm;
6     scanf("%d",&feet);
7     scanf("%d",&inch);
8     cm=(feet*12+inch)*2.54;
9     printf("%.2f",cm);
10    return 0;
11 }
```

	Input	Expected	Got	
5	5	167.64	167.64	✓
6	6			

Passed all tests! ✓

Question 2

Correct

Create a program that reads two integers, a and b, from the user. Your program should compute and display:

- The sum of a and b
- The difference when b is subtracted from a
- The product of a and b
- The quotient when a is divided by b
- The remainder when a is divided by b

Input Format

First line, read the first number.

Second line, read the second number.

Output Format

First line, print the sum of a and b

Second line, print the difference when b is subtracted from a

Third line, print the product of a and b

Fourth line, print the quotient when a is divided by b

Fifth line, print the remainder when a is divided by b

Sample

Input 1 100 6

Sample Output

106 94 600 16 4

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int a,b;
5     scanf("%d",&a);
6     scanf("%d",&b);
7     printf("%d\n",a+b);
8     printf("%d\n",a-b);
9     printf("%d\n",a*b);
10    printf("%d\n",a/b);
11    printf("%d\n",a%b);
12 }
13 }
```

	Input	Expected	Got	
✓	100	106	106	✓
	6	94	94	
	600	600	600	
	16	16	16	
	4	4	4	

Passed all tests! ✓

Question 3

Correct

A bakery sells loaves of bread for \$3.49 each. Day old bread is discounted by 60 percent. Write a program that begins by reading the number of loaves of day old bread being purchased from the user. Then your program should display the regular price for the bread, the discount because it is a day old, and the total price. Each of these amounts should be displayed on its own line with an appropriate label. All of the values should be displayed using two decimal places.

Input Format

Read the number of day old loaves.

Output Format

First line, print Regular price: price
Second line, print Discount: discount
Third line, print Total: total

Note: All of the values should be displayed using two decimal places.

Sample Input 1

10

Sample Output 1

Regular price: 34.90

Discount: 20.94

Total: 13.96

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int num;
5     float price,discount,total;
6     scanf("%d",&num);
7     price=num*3.49;
8     discount=price*0.60;
9     total=price-discount;
10    printf("Regular price: %.2f\n", price);
11    printf("Discount: %.2f\n", discount);
12    printf("Total: %.2f", total);
13    return 0;
14 }
15 }
```

	Input	Expected	Got	
✓	10	Regular price: 34.90 Discount: 20.94 Total: 13.96	Regular price: 34.90 Discount: 20.94 Total: 13.96	✓

Passed all tests! ✓

Status	Finished
Started	Saturday, 1 November 2025, 6:13 PM
Completed	Saturday, 1 November 2025, 6:40 PM
Duration	27 mins 26 secs

Question 1

Correct

Goki recently had a breakup, so he wants to have some more friends in his life. Goki has N people who he can be friends with, so he decides to choose among them according to their skills set $Y_i (1 \leq i \leq n)$. He wants atleast X skills in his friends. Help Goki find his friends.

INPUT

First line contains a single integer X - denoting the minimum skill required to be Goki's friend. Next line contains one integer Y - denoting the skill of the person

OUTPUT

Print if he can be friend with Goki. 'YES' (without quotes) if he can be friends with Goki else 'NO' (without quotes).

CONSTRAINTS

$1 \leq N \leq 1000000$

$1 \leq X, Y \leq 1000000$

SAMPLE INPUT 1

100 110

SAMPLE OUTPUT 1

YES

SAMPLE INPUT 2

100 90

SAMPLE OUTPUT 2

NO

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int X,Y;
5     scanf("%d", &X);
6     scanf("%d", &Y);
7     if (Y >= X)
8 }
```

```
9     printf("YES\n");
10    }
11    else
12    {
13        printf("NO\n");
14    }
15    return 0;
16
17 }
```

	Input	Expected	Got	
✓	100 110	YES	YES	✓
✓	100 90	NO	NO	✓

Passed all tests! ✓

Question 2

Correct

Before the outbreak of corona virus to the world, a meeting happened in a room in Wuhan. A person who attended that meeting had COVID-19 and no one in the room knew about it! So everyone started shaking hands with everyone else in the room as a gesture of respect and after meeting unfortunately everyone got infected! Given the fact that any two persons shake hand exactly once, Can you tell the total count of handshakes happened in that meeting?

Say no to shakehands. Regularly wash your hands. Stay Safe.

Input Format Read an integer N, the total number of people attended that meeting.

Output Format

Print the number of handshakes.

Constraints $0 < N < 10^6$

SAMPLE INPUT 1

1

SAMPLE OUTPUT

0

SAMPLE INPUT 2

2

SAMPLE OUTPUT 2

1

Explanation

Case 1: The lonely board member shakes no hands, hence 0.

Case 2: There are 2 board members, 1 handshake takes place.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     long long int N;
5     long long int handshakes;
6     scanf("%lld", &N);
7 }
```

```
'  
8 |     handshakes=N*(N-1)/2,  
9 |     printf("%lld\n", handshakes);  
10| }
```



	Input	Expected	Got	
✓	1	0	0	✓
✓	2	1	1	✓

Passed all tests! ✓



Question 3

Correct

In our school days, all of us have enjoyed the Games period. Raghav loves to play cricket and is Captain of his team. He always wanted to win all cricket matches. But only one last Games period is left in school now. After that he will pass out from school.

So, this match is very important to him. He does not want to lose it. So he has done a lot of planning to make sure his teams wins. He is worried about only one opponent - Jatin, who is very good batsman.

Raghav has figured out 3 types of bowling techniques, that could be most beneficial for dismissing Jatin. He has given points to each of the 3 techniques.

You need to tell him which is the maximum point value, so that Raghav can select best technique.

3 numbers are given in input. Output the maximum of these numbers.

Input:

Three space separated integers.

Output:

Maximum integer value

SAMPLE INPUT

8 6 1

SAMPLE OUTPUT

8

Explanation

Out of given numbers, 8 is maximum.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int num1,num2,num3;
5     int max;
6     scanf("%d %d %d", &num1, &num2, &num3);
7 }
```

```
'  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18 {  
    max=num1;  
}  
else if (num2 >= num1 && num2 >= num3){  
    max = num2;  
}else{  
    max =num3;  
}  
printf("%d\n", max);  
return 0;  
}
```

	Input	Expected	Got	
✓	8 6 1	8	8	✓

Passed all tests! ✓

Status	Finished
Started	Monday, 3 November 2025, 5:49 PM
Completed	Monday, 3 November 2025, 6:18 PM
Duration	28 mins 53 secs

Question 1

Correct

The first three terms in an arithmetic progression are passed as input. A positive integer value N (where $N > 3$) is also passed as the input. The program must print Nth term in the arithmetic progression.

Input Format:

The first line will contain the first three terms separated by a space.

The second line will contain N.

Output Format:

The integer value denoting the Nth term.

Example Input/Output 1:

Input:

5 10 15
6

Output:

30

Explanation:

The progression is 5 10 15 20 25 30 35 and so on.

The 6th term is 30.

Example Input/Output 2:

Input:

1 4 7
5

Output:

13

For example:

Input	Result
5 10 15	30
6	
1 4 7	13
5	

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     long long a1,a2,a3,N;
5     if(scanf("%lld %lld %lld",&a1,&a2,&a3)!=3) return 0;
6     if(scanf("%lld",&N)!=1) return 0;
7     long long d=a2-a1;
8     long long nth=a1+(N-1)*d;
9     printf("%lld\n",nth);
10    return 0;
11 }
```

	Input	Expected	Got	
✓	5 10 15 6	30	30	✓
✓	1 4 7 5	13	13	✓

Passed all tests! ✓

Question 2

Correct

A floating point value F indicating the amount in rupees is passed as input. The program must print the corresponding value in paise.

Note: 1 rupee = 100 paise.

Input Format:

The first line contains F.

Output Format:

The first line contains the integer value denoting the paise.

Boundary Conditions:

$0.00 \leq F \leq 999999.99$

Example Input/Output 1:

Input:

11.30

Output:

1130

Example Input/Output 2:

Input:

0.80

Output:

80

Example Input/Output 3:

Input:

0.0

Output:

0

For example:

Input	Result
11.30	1130
0.80	80
0.0	0

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     float f;
5     scanf("%f",&f);
6     int pulses=(int)(f*100);
7     printf("%d\n",pulses);
8     return 0;
9 }
```

	Input	Expected	Got	
✓	11.30	1130	1130	✓
✓	0.80	80	80	✓
✓	0.0	0	0	✓

Passed all tests! 

Question 3

Correct

Alen and Tim both own a tennis grass court and they decide to mow the lawn in and around the court which will cost them Rs.5 per square feet. Given the amount they spent to mow the lawn and the width of the court, find the difference between the length of the courts.

Input Format:

First line will contain the amount spent (in Rs) by Alen and Tim separated by space.

Second line will contain the width (in feet) of the courts of Alen and Tim separated by space.

Output Format:

The value (in feet) which is the difference between the length of the courts rounded off upto two decimal points.

Example Input/Output 1:

Input:

100000 80000

100 80

Output:

0.00

Explanation:

Area of Alen's court = $100000/5 = 20000$ sq.ft. Length = $20000/100 = 200$

Area of Tim's court = $80000/5 = 16000$ sq.ft. Length = $16000/80 = 200$

Hence the difference = $200-200 = 0$ which when rounded off to decimal places is 0.00

Example Input/Output 2:

Input:

17500 40000

50 80

Output:

30.00

Explanation:

Area of Alen's court = $17500/5 = 3500$ sq.ft. Length = $3500/50 = 70$

Area of Tim's court = $40000/5 = 8000$ sq.ft. Length = $8000/80 = 100$

Hence the difference = $100-70 = 30.00$

For example:

Input	Result
100000 80000	0.00
100 80	
17500 40000	30.00
50 80	

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<math.h>
3 int main()
4 {
5     float amountA,amountT,widthA,widthT;
6     scanf("%f %f",&amountA,&amountT);
7     scanf("%f %f",&widthA,&widthT);
8     float lengthA=amountA/(5*widthA);
9     float lengthT=amountT/(5*widthT);
10    float diff=fabs(lengthA-lengthT);
11    printf("%.2f\n",diff);
12    return 0;
13 }
14 }
```

	Input	Expected	Got	
✓	100000 80000 100 80	0.00	0.00	✓
✓	17500 40000 50 80	30.00	30.00	✓

Passed all tests! 

Question 4

Correct

In a zoo there are some birds and animals. All birds have two legs and all animals have four legs.

Given the head count and leg count of both birds and animals taken together, the program must print the head count of birds and animals separated by a space as output.

Input Format:

First line will contain the integer value H representing the head count of both birds and animals taken together.

Second line will contain the integer value L representing the leg count of both birds and animals taken together.

Output Format:

First line will contain the integer values of the head count of birds and animals separated by a space.

Constraints:

$$0 < H < 1000$$

$$1 < L < 2000$$

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

Input:

27

84

Output:

12 15

Explanation:

There are 12 birds and 15 animals.

Example 2:

Input:

114
256

Output:

100 14

For example:

Input	Result
27	12 15
84	
114	100 14
256	

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     int H,L;
5     scanf("%d",&H);
6     scanf("%d",&L);
7     int A=(L-2*H)/2;
8     int B=H-A;
9     printf("%d %d\n",B,A);
10    return 0;
11 }
```

	Input	Expected	Got	
✓	27 84	12 15	12 15	✓

	Input	Expected	Got	
✓	114 256	100 14	100 14	✓

Passed all tests! ✓

Question 5

Correct

An integer value N is passed as the input. The program must reverse the sign of N and print -N as the output.

Input Format:

The first line contains N.

Output Format:

The first line contains -N.

Boundary Conditions:

-999999 <= N <= 999999

Example Input/Output 1:

Input:

125

Output:

-125

Example Input/Output 2:

Input:

-346

Output:

346

Example Input/Output 3:

Input:

0

Output:

0

For example:

Input	Result
125	-125
-346	346
0	0

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main(){
3     int N;
4     scanf("%d",&N);
5     printf("%d",-N);
6     return 0;
7 }
```

	Input	Expected	Got	
✓	125	-125	-125	✓
✓	-346	346	346	✓
✓	0	0	0	✓

Passed all tests! ✓

Question 6

Correct

The program must accept a number N and print the sum of tenth and unit digits.

Input Format:

The first line denotes the value of N.

Output Format:

The first line contains the sum of tenth and unit digits.

Boundary Conditions:

$10 \leq N \leq 9999999$

Example Input/Output 1:

Input:

231

Output:

4

Example Input/Output 2:

Input:

100

Output:

0

Example Input/Output 3:

Input:

192

Output:

11

For example:

Input	Result
231	4
100	0
192	11

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     int N;
5     scanf("%d",&N);
6     int units=N%10;
7     int tens=(N/10)%10;
8     int sum=tens+units;
9     printf("%d",sum);
10    return 0;
11 }
```

	Input	Expected	Got	
✓	231	4	4	✓
✓	100	0	0	✓
✓	192	11	11	✓

Passed all tests! ✓

Status	Finished
Started	Sunday, 2 November 2025, 3:22 PM
Completed	Sunday, 2 November 2025, 3:45 PM
Duration	23 mins 10 secs

Question 1

Correct

Objective

In this challenge, we're getting started with conditional statements.

Task

Given an integer, ***n***, perform the following conditional actions:

- If ***n*** is odd, print Weird
- If ***n*** is even and in the inclusive range of **2** to **5**, print **Not Weird**
- If ***n*** is even and in the inclusive range of **6** to **20**, print **Weird**
- If ***n*** is even and greater than **20**, print **Not Weird**

Complete the stub code provided in your editor to print whether or not ***n*** is weird.

Input Format

A single line containing a positive integer, ***n***.

Constraints

- $1 \leq n \leq 100$

Output Format

Print Weird if the number is weird; otherwise, print Not Weird.

Sample Input 0

3

Sample Output 0

Weird

Sample Input 1

24

Sample Output 1

Not Weird

Explanation

Sample Case 0: n = 3

n is odd and odd numbers are weird, so we print **Weird**.

Sample Case 1: n = 24

n > 20 and n is even, so it isn't weird. Thus, we print **Not Weird**.

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main(){
3     int n;
4     scanf("%d", &n);
5     if(n%2 !=0){
6         printf("Weird\n");
7     }else{
8         if(n>=2 && n<=5){
9             printf("Not Weird\n");
10        }else if(n>=6 && n<=20){
11            printf("Weird\n");
12        }else{
13            printf("Not Weird\n");
14        }
15    }
16    return 0;
17 }
```

	Input	Expected	Got	
✓	3	Weird	Weird	✓
✓	24	Not Weird	Not Weird	✓

Passed all tests! ✓

Question 2

Correct

Write a program to read two integer values and print true if both the numbers end with the same digit, otherwise print false.

Example: If 698 and 768 are given, program should print true as they both end with 8.

Sample Input 1

25

53

Sample Output 1

false

Sample Input 2

27 77

Sample Output 2

true

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int num1,num2;
4     scanf("%d %d", &num1, &num2);
5     if(num1 % 10 == num2 % 10) {
6         printf("true\n");
7     }else{
8         printf("false\n");
9     }
10    return 0;
11 }
```

	Input	Expected	Got	
✓	25 53	false	false	✓
✓	27 77	true	true	✓

Passed all tests! ✓

Question 3

Correct

Three numbers form a Pythagorean triple if the sum of squares of two numbers is equal to the square of the third.

For example, 3, 5 and 4 form a Pythagorean triple, since $3^2 + 4^2 = 25 = 5^2$

You are given three integers, a, b, and c. They need not be given in increasing order. If they form a Pythagorean triple, then print "yes", otherwise, print "no". Please note that the output message is in small letters.

Sample Input

```
3
5
4
```

Sample Output

yes

For example:

Input	Result
3	yes
5	
4	

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main(){
3     int a,b,c;
4     scanf("%d", &a);
5     scanf("%d", &b);
6     scanf("%d", &c);
7     long long a2 = (long long)a * a;
8     long long b2 = (long long)b * b;
9     long long c2 = (long long)c * c;
10    if (a2 + b2 == c2 || a2 + c2 == b2 || b2 + c2 == a2){
11        printf("yes\n");
12    }else{
13        printf("no\n");
14    }
15    return 0;
16 }
```

	Input	Expected	Got	
✓	3 5 4	yes	yes	✓
✓	5 8 2	no	no	✓

Passed all tests! ✓

Status	Finished
Started	Sunday, 2 November 2025, 3:51 PM
Completed	Sunday, 2 November 2025, 4:46 PM
Duration	54 mins 56 secs

Question 1

Correct

Write a program that determines the name of a shape from its number of sides. Read the number of sides from the user and then report the appropriate name as part of a meaningful message. Your program should support shapes with anywhere from 3 up to (and including) 10 sides. If a number of sides outside of this range is entered then your program should display an appropriate error message.

Sample Input 1

3

Sample Output 1

Triangle

Sample Input 2

7

Sample Output 2

Heptagon

Sample Input 3

11

Sample Output 3

The number of sides is not supported.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int nsides;
5     scanf("%d", &nsides);
6     if (nsides == 3)
7         printf("Triangle");
8     else if (nsides == 4)
9         printf("Quadrilateral");
10    else if (nsides == 5)
11        printf("Pentagon");
12    else if (nsides == 6)
13        printf("Hexagon");
14    else if (nsides == 7)
```

```
15     printf("Heptagon");
16 else if (nsides == 8)
17     printf("octagon");
18 else if (nsides == 9)
19     printf("Nonagon");
20 else if (nsides == 10)
21     printf("Decagon");
22 else
23     printf("The number of sides is not supported.");
24 return 0;
25 }
26
27 }
```

[]

	Input	Expected	Got
✓	3	Triangle	Triangle
✓	7	Heptagon	Heptagon
✓	11	The number of sides is not supported.	The number of sides is not sup

Passed all tests! ✓



Question 2

Correct

The Chinese zodiac assigns animals to years in a 12-year cycle. One 12-year cycle is shown in the table below. The pattern repeats from there, with 2012 being another year of the Dragon, and 1999 being another year of the Hare.

Year	Animal
2000	Dragon
2001	Snake
2002	Horse
2003	Sheep
2004	Monkey
2005	Rooster
2006	Dog
2007	Pig
2008	Rat
2009	Ox
2010	Tiger
2011	Hare

Write a program that reads a year from the user and displays the animal associated with that year. Your program should work correctly for any year greater than or equal to zero, not just the ones listed in the table.

Sample Input 1

2004

Sample Output 1

Monkey

Sample Input 2

2010

Sample Output 2

Tiger

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
```

```
4     int year;
5     scanf("%d", &year);
6     if (year% 12 == 8)
7         printf("Dragon");
8     else if (year % 12 == 9)
9         printf("Snake");
10    else if (year % 12 == 10)
11        printf("Horse");
12    else if (year % 12 == 11)
13        printf("Sheep");
14    else if (year % 12 == 0)
15        printf("Monkey");
16    else if (year % 12 == 1)
17        printf("Rooster");
18    else if (year % 12 == 2)
19        printf("Dog");
20    else if (year % 12 == 3)
21        printf("Pig");
22    else if (year % 12 == 4)
23        printf("Rat");
24    else if (year % 12 == 5)
25        printf("Ox");
26    else if (year % 12 == 6)
27        printf("Tiger");
28    else if (year % 12 == 7)
29        printf("Hare");
30    return 0;
31 }
32 }
```

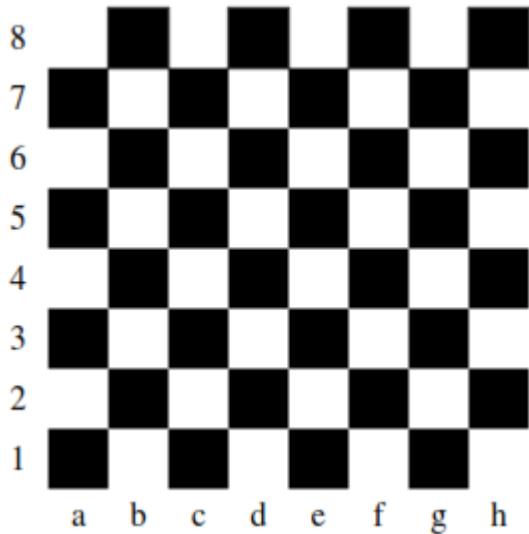
	Input	Expected	Got	
✓	2004	Monkey	Monkey	✓
✓	2010	Tiger	Tiger	✓

Passed all tests! ✓

Question 3

Correct

Positions on a chess board are identified by a letter and a number. The letter identifies the column, while the number identifies the row, as shown below:



Write a program that reads a position from the user. Use an if statement to determine if the column begins with a black square or a white square. Then use modular arithmetic to report the color of the square in that row. For example, if the user enters a1 then your program should report that the square is black. If the user enters d5 then your program should report that the square is white. Your program may assume that a valid position will always be entered. It does not need to perform any error checking.

Sample Input 1

a 1

Sample Output 1

The square is black.

Sample Input 2

d 5

Sample Output 2

The square is white.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     char column;
```

```
    column,
5     int row;
6     scanf(" %c%d", &column, &row);
7     int col_num = column - 'a' + 1;
8     if((col_num + row) % 2==0){
9         printf("The square is black.\n");
10    }else{
11        printf("The square is white.\n");
12    }
13
14 }
```

	Input	Expected	Got	
<input checked="" type="checkbox"/>	a 1	The square is black.	The square is black.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	d 5	The square is white.	The square is white.	<input checked="" type="checkbox"/>

Passed all tests! 

Status	Finished
Started	Sunday, 2 November 2025, 8:27 PM
Completed	Sunday, 2 November 2025, 9:32 PM
Duration	1 hour 4 mins

Question 1

Correct

Some data sets specify dates using the year and day of year rather than the year, month, and day of month. The day of year (DOY) is the sequential day number starting with day 1 on January 1st.

There are two calendars - one for normal years with 365 days, and one for leap years with 366 days. Leap years are divisible by 4. Centuries, like 1900, are not leap years unless they are divisible by 400. So, 2000 was a leap year.

To find the day of year number for a standard date, scan down the Jan column to find the day of month, then scan across to the appropriate month column and read the day of year number. Reverse the process to find the standard date for a given day of year.

Write a program to print the Day of Year of a given date, month and year.

Sample Input 1

18

6

2020

Sample Output 1

170

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int date, month,year,day=0;
5     scanf("%d %d %d", &date, &month, &year);
6     switch (month - 1){
7         case 11:
8             day=day + 30;
9         case 10:
10            day=day + 31;
11        case 9:
12            day=day + 30;
13        case 8:
14            day=day + 31;
15        case 7:
16            day=day + 31;
17        case 6:
18            day=day + 30;
19        case 5:
20            day=day + 31;
21        case 4:
22            day=day + 30;
```

```
22     day=day + 28,  
23     case 3:  
24     day=day + 31;  
25     case 2:  
26     if((year % 4==0 && year % 100 !=0) || (year % 400 ==0))  
27     day =day + 29;  
28     else  
29     day=day + 28;  
30     case 1:  
31     day =day + 31;  
32     }  
33     day = day + date;  
34     printf("%d", day);  
35     return 0;  
36 }  
37 }
```

	Input	Expected	Got	
✓	18 6 2020	170	170	✓

Passed all tests! ✓

Question 2

Correct

Suppandi is trying to take part in the local village math quiz. In the first round, he is asked about shapes and areas. Suppandi, is confused, he was never any good at math. And also, he is bad at remembering the names of shapes. Instead, you will be helping him calculate the area of shapes.

- When he says rectangle he is actually referring to a square.
- When he says square, he is actually referring to a triangle.
- When he says triangle he is referring to a rectangle.
- And when he is confused, he just says something random. At this point, all you can do is say 0.

Help Suppandi by printing the correct answer in an integer.

Input Format

- Name of shape (always in upper case R à Rectangle, S à Square, T à Triangle)
- Length of 1 side
- Length of other side

Note: In case of triangle, you can consider the sides as height and length of base.

Output Format

- Print the area of the shape.

Sample Input 1

T
10
20

Sample Output 1

200

Sample Input 2

S
30
40

Sample Output 2

600

Sample Input 3

R

10

10

Sample Output 3

100

Sample Input 4

G

8

8

Sample Output 4

0

Sample Input 5

C

9

10

Sample Output 5

0

Explanation:

- First is output of area of rectangle
- Then, output of area of triangle
- Then output of area square
- Finally, something random, so we print 0

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     char shape;
5     int side1, side2, area;
6     scanf("%c", &shape);
7     scanf("%d %d", &side1, &side2);
8     switch (shape)
9 {
```

```
10     case 'R':
11     area = side1 * side2;
12     break;
13     case 'S':
14     area = (side1 * side2) /2;
15     break;
16     case 'T':
17     area = side1 * side2;
18     break;
19     default:
20     area=0;
21   }
22   printf("%d", area);
23   return 0;
24 }
25 }
```

	Input	Expected	Got	
✓	T 10 20	200	200	✓
✓	S 30 40	600	600	✓
✓	B 2 11	0	0	✓
✓	R 10 30	300	300	✓
✓	S 40 50	1000	1000	✓

Passed all tests! ✓

Question 3

Correct

Superman is planning a journey to his home planet. It is very important for him to know which day he arrives there. They don't follow the 7-day week like us. Instead, they follow a 10-day week with the following days:

Day Number Name of Day

- 1 Sunday
- 2 Monday
- 3 Tuesday
- 4 Wednesday
- 5 Thursday
- 6 Friday
- 7 Saturday
- 8 Kryptoday
- 9 Coluday
- 10 Daxamday

Here are the rules of the calendar:

- The calendar starts with Sunday always.
- It has only 296 days. After the 296th day, it goes back to Sunday.

You begin your journey on a Sunday and will reach after n. You have to tell on which day you will arrive when you reach there.

Input format:

- Contain a number n ($0 < n$)

Output format:

Print the name of the day you are arriving on.

Example Input

7

Example Output

Kryptoday

Example Input

1

Example Output

Monday

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int n, days, res;
5     scanf("%d", &n);
6     days = n % 296;
7     res = days % 10 + 1;
8     switch (res)
9     {
10         case 1:
11             printf("Sunday");
12             break;
13         case 2:
14             printf("Monday");
15             break;
16         case 3:
17             printf("Tuesday");
18             break;
19         case 4:
20             printf("Wednesday");
21             break;
22         case 5:
23             printf("Thursday");
24             break;
25         case 6:
26             printf("Friday");
27             break;
28         case 7:
29             printf("Saturday");
30             break;
31         case 8:
32             printf("Kryptonday");
33             break;
34         case 9:
35             printf("Coluday");
36             break;
37         case 10:
38             printf("Daxamday");
39             break;
40     }
41     return 0;
42 }
```



	Input	Expected	Got	
✓	7	Kryptoday	Kryptoday	✓
✓	1	Monday	Monday	✓

Passed all tests! ✓

GE23131-Programming Using C-2025

Week-04-01-Practice Session-Coding

Attempts allowed: 3

This quiz has been configured so that students may only attempt it using the Safe Exam Browser.

Time limit: 2 hours

Grading method: Highest grade

Your attempts

Attempt 1

Status	Finished
Started	Saturday, 1 November 2025, 7:13 PM
Completed	Saturday, 1 November 2025, 7:38 PM
Duration	24 mins 11 secs

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Status	Finished
Started	Monday, 3 November 2025, 12:48 PM
Completed	Monday, 3 November 2025, 1:00 PM
Duration	12 mins 25 secs

Question 1

Correct

A year Y will be passed as input. The program must find if the given year is a leap year or not.

- If it is leap year, the program must print yes else it should print no

Note: A year is a leap year if it is divisible by 4. If it is a century, then it should be divisible by 400.

The **pseudocode** is as given below:

```
if year is divisible by 400 then is_leap_year  
else if year is divisible by 100 then not_leap_year  
else if year is divisible by 4 then is_leap_year  
else not_leap_year
```

Example Input/Output:

If 2000 is the input, the program must print yes

If 2100 is the input, the program must print no

If 2013 is the input, the program must print no

Input Format:

A year as a number is passed to the standard input.

Output Format:

The string value as per the conditions above printed to the standard output.

Boundary Conditions:

$0 < Y \leq 8000$

Input:

1980

Expected Output:

yes

For example:

Input	Result
1980	yes

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     int year;
5     scanf("%d",&year);
6     if((year%400==0)|| (year%4==0&&year%100!=0))
7         printf("yes");
8     else
9         printf("no");
10    return 0;
11 }
```

	Input	Expected	Got	
✓	1980	yes	yes	✓

Passed all tests! ✓

Question 2

Correct

An expression E is passed as an input to the program. The expression will contain three numbers A, B and C, one equal symbol and one of the mathematical operators + - * /

But the given mathematical operator is incorrect and hence the expression is not valid. Hence the program must identify the correct operator and print that as the output.

Input Format:

First line will contain the expression E

Output Format:

First line will contain the correct mathematical operator

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

Input:

5-4=20

Output:

*

Explanation:

Only 5 multiplied with 4 gives 20. Hence - must be replaced with *.

Example 2:

Input:

999+9=111

Output:

/

Explanation:

Only 999 divided by 9 gives 111. Hence + must be replaced with /.

For example:

Input	Result
5-4=20	*
999+9=111	/

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     long long A,B,C;
5     char op,eq;
6     scanf("%lld %c %lld %c %lld",&A,&op,&B,&eq,&C);
7     if(A+B==C)
8         printf("+");
9     else if(A-B==C)
10        printf("=");
11     else if(A*B==C)
12        printf("*");
13     else if(B!=0&&A/B==C)
14        printf("/");
15     return 0;
16 }
```

	Input	Expected	Got	
✓	5-4=20	*	*	✓
✓	999+9=111	/	/	✓

Passed all tests! ✓

Status	Finished
Started	Saturday, 1 November 2025, 8:45 PM
Completed	Saturday, 1 November 2025, 9:25 PM
Duration	40 mins 24 secs

Question 1

Correct

A set of N numbers (separated by one space) is passed as input to the program. The program must identify the count of numbers where the number is odd number.

Input Format:

The first line will contain the N numbers separated by one space.

Boundary Conditions:

$3 \leq N \leq 50$

The value of the numbers can be from -99999999 to 99999999

Output Format:

The count of numbers where the numbers are odd numbers.

Example Input / Output 1:

Input:

5 10 15 20 25 30 35 40 45 50

Output:

5

Explanation:

The numbers meeting the criteria are 5, 15, 25, 35, 45.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int count=0;
5     int number;
6     while(scanf("%d", &number) == 1){
7         if (number % 2!= 0){
8             count++;
9         }
10    }
11    printf("%d\n", count);
12 }
```

	Input	Expected	Got
✓	5 10 15 20 25 30 35 40 45 50	5	5 ✓

Passed all tests! ✓

Question 2

Correct

Given a number N, return true if and only if it is a *confusing number*, which satisfies the following condition:

We can rotate digits by 180 degrees to form new digits. When 0, 1, 6, 8, 9 are rotated 180 degrees, they become 0, 1, 9, 8, 6 respectively. When 2, 3, 4, 5 and 7 are rotated 180 degrees, they become invalid. A *confusing number* is a number that when rotated 180 degrees becomes a **different** number with each digit valid.

Example 1:

6 -> 9

Input:

6

Output:

true

Explanation:

We get 9 after rotating 6, 9 is a valid number and $9 \neq 6$.

Example 2:

89 -> 68

Input:

89

Output:

true

Explanation:

We get 68 after rotating 89, 86 is a valid number and $86 \neq 89$.

Example 3:

11 -> 11

Input:

11

Output:

false

Explanation:

We get 11 after rotating 11, 11 is a valid number but the value remains the same, thus 11 is not a confusing number.

Note:

1. $0 \leq N \leq 10^9$
2. After the rotation we can ignore leading zeros, for example if after rotation we have 0008 then this number is considered as just 8.

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     int n,d,rev=0,ok=1;
5     scanf("%d",&n);
6     int t=n;
7     while (t>0)
8     {
9         d=t%10;
10        if(d==0)d=0;
11        else if(d==1)d=1;
12        else if(d==6)d=9;
13        else if(d==8)d=8;
14        else if(d==9)d=6;
15        else
16        {
17            ok=0;
18            break;
19        }
20        rev=rev*10+d;
21        t=t/10;
22    }
23    if(ok && rev!=n)
24        printf("true");
25    else
26        printf("false");
27    return 0;
28 }
```

	Input	Expected	Got	
✓	6	true	true	✓
✓	89	true	true	✓
✓	25	false	false	✓

Passed all tests! ✓

Question 3

Correct

Problem Statement:

In a small data-entry office, the operator records daily temperature changes in a city.

Positive numbers indicate temperature rises, and negative numbers indicate temperature drops.

The operator enters all temperature changes for a day on a single line, separated by spaces.

Once the operator presses Enter, the program must calculate and display:

The total count of positive temperature changes.

The total count of negative temperature changes.

This will help the office track how many times the temperature rose or fell during the day.

Boundary Conditions:

The number of integers entered can vary.

Each integer can range from -99999999 to 99999999.

Sample Input:

5 -2 10 0 -3 7

Sample Output:

Positive numbers count: 3

Negative numbers count: 2

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int n, pos=0, neg=0;
5     while(scanf("%d",&n)==1)
6     {
7         if(n>=0)
8             pos++;
9         else if(n<0)
10            neg++;
11    }
12    printf("Positive numbers count: %d\n",pos);
13    printf("Negative numbers count: %d\n",neg);
14    return 0;
15
16 }
```

	Input	Expected	Got	
✓	-10 5 6 -6	Positive numbers count: 2 Negative numbers count: 2	Positive numbers count: 2 Negative numbers count: 2	✓
✓	10 -6 6 7 8 9 4 0	Positive numbers count: 7 Negative numbers count: 1	Positive numbers count: 7 Negative numbers count: 1	✓

Passed all tests! ✓

Status	Finished
Started	Monday, 3 November 2025, 11:59 AM
Completed	Monday, 3 November 2025, 12:20 PM
Duration	20 mins 15 secs

Question 1

Correct

A single line L with a set of space separated values indicating distance travelled and time taken is passed as the input. The program must calculate the average speed S (with precision upto 2 decimal places) and print S as the output.

Note: The distance and time taken will follow the format DISTANCE@TIMETAKEN. DISTANCE will be in kilometers and TIMETAKEN will be in hours.

Input Format:

The first line contains L.

Output Format:

The first line contains the average speed S.

Boundary Conditions:

Length of L will be from 3 to 100.

Example Input/Output 1:

Input:

60@2 120@3

Output:

36.00 kmph

Explanation:

Total distance = $60+120 = 180$ km.

Total time taken = $2+3 = 5$ hours.

Hence average speed = $180/5 = 36.00$ kmph

For example:

Input	Result
60@2 120@3	36.00 kmph

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     float distance,time;
4     float total_distance=0,total_time=0;
5     while (scanf("%f@%f",&distance,&time)==2)
6     {
7         total_distance+=distance;
8         total_time+=time;
9     }
10    float avg_speed=total_distance / total_time;
11    printf("%.2f kmph",avg_speed);
12    return 0;
13 }
```

	Input	Expected	Got	
✓	60@2 120@3	36.00 kmph	36.00 kmph	✓

Passed all tests! ✓

Question 2

Correct

The program must accept two numbers X and Y and then print their HCF/GCD.

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 HCF of X and Y.

Boundary Conditions:

$1 \leq X \leq 999999$

$1 \leq Y \leq 999999$

Example Input/Output 1:

Input:

30

40

Output:

10

Example Input/Output 2:

Input:

15

10

Output:

5

For example:

Input	Result
30	10
40	

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()\n
```

```
3 {  
4     int x,y;  
5     scanf("%d",&x);  
6     scanf("%d",&y);  
7     while(y!=0){  
8         int temp=y;  
9         y=x%y;  
10        x=temp;  
11    }  
12    printf("%d",x);  
13    return 0;  
14}  
15 }
```

	Input	Expected	Got	
✓	30 40	10	10	✓

Passed all tests! ✓

Question 3

Correct

A string S is passed as input. S will contain two integer values separated by one of these alphabets - A, S, M, D where

- A or a is for addition
- S or s is for subtraction
- M or m is for multiplication
- D or d is for division

The program must perform the necessary operation and print the result as the output. (Ignore any floating point values just print the integer result.)

Input Format:

The first line contains S.

Output Format:

The first line contains the resulting integer value.

Boundary Conditions:

Length of S is from 3 to 100.

Example Input/Output 1:

Input:

5A11

Output:

16

Explanation:

As the alphabet is A, 5 and 11 are added giving 16.

Example Input/Output 2:

Input:

120D6

Output:

20

Example Input/Output 3:

Input:

1405d10

Output:

140

For example:

Input	Result
5A11	16
120D6	20
1405d10	140

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<ctype.h>
3 int main()
4 {
5     int a,b;
6     char op;
7     scanf("%d%c%d",&a,&op,&b);
8     op=toupper(op);
9     if(op=='A')
10    printf("%d",a+b);
11    else if(op=='5')
12    printf("%d",a-b);
13    else if(op=='M')
14    printf("%d",a*b);
15    else if(op=='D')
16    printf("%d",a/b);
17    return 0;
18 }
19

```

	Input	Expected	Got	
✓	5A11	16	16	✓
✓	120D6	20	20	✓
✓	1405d10	140	140	✓

Passed all tests! ✓

Status	Finished
Started	Monday, 3 November 2025, 12:23 PM
Completed	Monday, 3 November 2025, 12:41 PM
Duration	18 mins 20 secs

Question 1

Correct

The name and mileage of certain cars is passed as the input. The format is CARNAME@MILEAGE and the input is as a single line, with each car information separated by a space. The program must print the car with the lowest mileage. (Assume no two cars will have the lowest mileage)

Input Format:

The first line contains the CARNAME@MILEAGE separated by a space.

Output Format:

The first line contains the name of the car with the lowest mileage.

Boundary Conditions:

The length of the input string is between 4 to 10000.

The length of the car name is from 1 to 50.

Example Input/Output 1:

Input:

Zantro@16.15 Zity@12.5 Gamry@9.8

Output:

Gamry

For example:

Input	Result
Zantro@16.15 Zity@12.5 Gamry@9.8	Gamry

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     char car[10000];
5     char name[50],minName[50];
6     float mileage,min=1e9;
7     while(scanf("%s",car)!=EOF){
8         sscanf(car,"%[^@]@%f",name,&mileage);
9         if(mileage<min){
10             min=mileage;

```

```
11     strcpy(minName, name);
12
13 }
14 }
15 printf("%s", minName);
16 return 0;
17 }
```



	Input	Expected	Got	
<input checked="" type="checkbox"/>	Zantro@16.15 Zity@12.5 Gamry@9.8	Gamry	Gamry	<input checked="" type="checkbox"/>

Passed all tests!



Question 2

Correct

A certain number of people attended a meeting which was to begin at 10:00 am on a given day. The arrival time in HH:MM format of those who attended the meeting is passed as the input in a single line, with each arrival time by a space. The program must print the count of people who came late (after 10:00 am) to the meeting.

Input Format:

The first line contains the arrival time separated by a space.

Output Format:

The first line contains the count of late comers.

Boundary Conditions:

The length of the input string is between 4 to 10000.

The time HH:MM will be in 24 hour format (HH is hours and MM is minutes).

Example Input/Output 1:

Input:

10:00 9:55 10:02 9:45 11:00

Output:

2

Explanation:

The 2 people were those who came at 10:02 and 11:00

For example:

Input	Result
10:00 9:55 10:02 9:45 11:00	2

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
    ...
}
```

```
4     char time[10];
5     int h,m,count=0;
6     while (scanf("%s",time)!=EOF){
7         sscanf(time,"%d:%d",&h,&m);
8         if(h>10||(h==10 && m>0))
9             count++;
10    }
11    printf("%d",count);
12    return 0;
13 }
```

	Input	Expected	Got	
✓	10:00 9:55 10:02 9:45 11:00	2	2	✓

Passed all tests! ✓

Question 3

Correct

A single line consisting of a set of integers, each separated by space is passed as input to the program. The program must print the sum of all the integers present.

Input Format:

The first line contains the integer values (Each separated by a space)

Output Format:

The first line contains the sum of all the integers.

Boundary Conditions:

The length of the input string is between 3 to 10000

The value of the integer values will be from -99999 to 99999

Example Input/Output 1:

Input:

100 -99 98 5

Output:

104

Example Input/Output 2:

Input:

100 200 -300 500 -450 -50

Output:

0

For example:

Input	Result
100 -99 98 5	104

Input	Result
100 200 -300 500 -450 -50	0

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     int n,sum=0;
5     while(scanf("%d",&n)!=EOF)
6         sum+=n;
7     printf("%d",sum);
8     return 0;
9 }
```

	Input	Expected	Got	
✓	100 -99 98 5	104	104	✓
✓	100 200 -300 500 -450 -50	0	0	✓

Passed all tests! ✓

Status	Finished
Started	Monday, 3 November 2025, 6:22 PM
Completed	Monday, 3 November 2025, 8:44 PM
Duration	2 hours 21 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 if an even number turns up. The numbers shown 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 input. The program must print the net gain or loss 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
21 }
22

```

	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 the count of the common factors C excluding 1.

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 main()
3 {
4     int N,i,j,nums[20],min,count=0;
5     scanf("%d",&N);
6     for(i=0;i<N;i++)
7         scanf("%d",&nums[i]);
8     min=nums[0];
9     for(i=1;i<N;i++){
10         if(nums[i]<min)
11             min=nums[i];
12         for(i=2;i<=min;i++){
13
14             int common=1;
15             for(j=0;j<N;j++){
16
17                 if(nums[j]%i!=0){
18                     common=0;
19                     break;
20                 }
21             }
22             if(common)
23                 count++;
24         }
25         printf("%d",count);
26         return 0;
27     }
28 }
```

	Input	Expected	Got	
✓	2 100 75	2	2	✓
✓	3 10 20 30	3	3	✓

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 (the range is inclusive of 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 }
```

	Input	Expected	Got	
✓	6142 6200	6	6	✓
✓	38 70	7	7	✓

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     int n;
4     scanf("%d",&n);
```

```
5     int a=0,b=1,c,i;
6     printf("%d %d",a,b);
7     for(i=2;i<n;i++){
8         c=a+b;
9         printf(" %d",c);
10        a=b;
11        b=c;
12    }
13    return 0;
14 }
```

	Input	Expected	Got	
✓	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 program must print the average of first and second innings (with precision upto two decimal places).

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>
2 int main() {
3     int n;
4     scanf("%d",&n);
5     float firstSum=0,secondSum=0;
6     float a,b;
7     for(int i=0;i<n;i++){
8         scanf("%f %f",&a,&b);
9         firstSum+=a;
10        secondSum+=b;
11    }
12    printf("%.2f\n%.2f",firstSum/n,secondSum/n);
13    return 0;
14 }
```

	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 <= 9999999

X < Y <= 9999999

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 11	3 5 7 9
24 30	25 27 29

Answer: (penalty regime: 0 %)

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

	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     int n,i,isPrime=1;
4     scanf("%d",&n);
```

```
5     if(n<=1) isPrime=0;
6     else{
7         for(i=2;i*i<=n;i++){
8             if(n%i==0){
9                 isPrime=0;
10                break;
11            }
12        }
13    }
14    if(isPrime)
15    printf("YES");
16    else
17    printf("NO");
18    return 0;
19 }
```

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

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
12         }else if(num>second && num<largest){
13             second=num;
14         }
15     }
16     printf("%d",second);
17     return 0;
18 }
```

	Input	Expected	Got	
✓	3 100 2200 345	345	345	✓
✓	6 -23 -256 -87	-23	-23	✓

	Input	Expected	Got	
	-90			
	-11019			
	-2			

Passed all tests! 

Status	Finished
Started	Sunday, 2 November 2025, 1:33 PM
Completed	Sunday, 2 November 2025, 2:23 PM
Duration	50 mins 2 secs

Question 1

Correct

Write a program that prints a simple chessboard.

Input format:

The first line contains the number of inputs T.

The lines after that contain different values for size of the chessboard

Output format:

Print a chessboard of dimensions size * size. Print a W for white spaces and B for black spaces.

Input:

2
3
5

Output:

WBW
BWB
WBW
WBWBW
BWBWB
WBWBW
BWBWB
WBWBW

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int T;
4     scanf("%d", &T);
5     while(T--){
6         int size;
7         scanf("%d", &size);
8         for (int i=0;i< size; i++) {
9             for (int j=0; j<size; j++) {
10                 if((i+j)%2==0){
11                     printf("W");
12                 }else{
13                     printf("B");
14                 }
15             }
}
```

```
16         printf("\n");
17     }
18 }
19 return 0;
20 }
21 }
```

[]

	Input	Expected	Got	
✓	2	WBW	WBW	✓
	3	BWB	BWB	
	5	WBW WBWBW BWBWB WBWBW BWBWB WBWBW	WBW WBWBW BWBWB WBWBW BWBWB WBWBW	

//

Passed all tests! ✓

Question 2

Correct

Let's print a chessboard!

Write a program that takes input:

The first line contains T, the number of test cases

Each test case contains an integer N and also the starting character of the chessboard

Output Format

Print the chessboard as per the given examples

Sample Input / Output

Input:

2
2 W
3 B

Output:

WB
BW
BWB
WBW
BWB

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int T;
4     scanf("%d", &T);
5     while(T--){
6         int N;
7         char C;
8         scanf("%d %c", &N, &C);
9         for (int i=0; i<N;i++){
10            for(int j=0; j<N;j++){
11                if((i+j)%2==0){
12                    printf("%c", C);
13                }else{
14                    if(C=='W'){
15                        printf("B");
16                    }else {
17                        printf("W");
18                    }
19                }
20            }
21        }
22    }
23 }
```

```
17  
18 }  
19  
20 }  
21 }  
22 printf("\n");  
23 }  
24 }  
25 return 0;  
26  
27 }  
28 }
```

	Input	Expected	Got	
✓	2	WB	WB	✓
	2 W	BW	BW	
	3 B	BWB	BWB	
		WBW	WBW	
		BWB	BWB	

Passed all tests! ✓

Question 3

Correct

Problem Statement:

In a small coding competition, participants are to be grouped into teams of three members, each member represented by a number — 1, 2, and 3.

The rule of the competition states that no member can repeat within the same team.

Write a program to display all possible unique team combinations that can be formed using the members 1, 2, and 3 without repetition.

Sample Output:

1 2 3

1 3 2

2 1 3

2 3 1

3 1 2

3 2 1

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int i,j,k;
4     for(i=1;i<=3;i++){
5         for(j=1;j<=3;j++){
6             for(k=1;k<=3;k++){
7                 if(i!=j&&i!=k &&j!=k){
8                     printf("%d %d %d\n",i,j,k);
9                 }
10            }
11        }
12    }
13    return 0;
14 }
```

	Expected	Got	
✓	1 2 3	1 2 3	✓
	1 3 2	1 3 2	
	2 1 3	2 1 3	
	2 3 1	2 3 1	
	3 1 2	3 1 2	
	3 2 1	3 2 1	

Passed all tests! ✓

Status	Finished
Started	Sunday, 2 November 2025, 2:26 PM
Completed	Sunday, 2 November 2025, 3:19 PM
Duration	52 mins 59 secs

Question 1

Correct

The k-digit number N is an Armstrong number if and only if the k-th power of each digit sums to N.

Given a positive integer N, return true if and only if it is an Armstrong number.

Example 1:

Input:

153

Output:

true

Explanation:

153 is a 3-digit number, and $1^3 + 5^3 + 3^3 = 153$.

Example 2:

Input:

123

Output:

false

Explanation:

123 is a 3-digit number, and $1^3 + 2^3 + 3^3 \neq 123$.

Example 3:

Input:

1634

Output:

true

Note:

$1 \leq N \leq 10^8$

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<math.h>
3 int main()
4 {
5     long long int num,sum=0,nod=0,rem,temp;
6     scanf("%lld",&num);
7     temp=num;
8     while(num>0)
9     {
10         nod++;
11         num=num/10;
12     }
13     num=temp;
14     while(num>0)
15     {
16         rem=num%10;
17         sum=sum+pow(rem,nod);
18         num=num/10;
19     }
20     if(sum==temp)
21     printf("true");
22
23     else
24     printf("false");
25     return 0;
26 }
27 }
```

	Input	Expected	Got	
✓	153	true	true	✓
✓	123	false	false	✓

Passed all tests! ✓

Question 2

Correct

Take a number, reverse it and add it to the original number until the obtained number is a palindrome.

Constraints

$1 \leq \text{num} \leq 99999999$

Sample Input 1

32

Sample Output 1

55

For example:

Input	Result
32	55
1234	5555

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int reverse(int n)
3 {
4     int rev=0;
5     while(n>0)
6     {
7         rev=rev*10+n%10;
8         n=n/10;
9     }
10    return rev;
11 }
12
13 int main()
14 {
15     int num;
16     scanf("%d",&num);
17
18     while(num!=reverse(num))
19     {
20         num=num+reverse(num);
21
22     }printf("%d",num);
23     return 0;
24 }
```

25
26

	Input	Expected	Got	
✓	32	55	55	✓
✓	1234	5555	5555	✓

Passed all tests! ✓



Question 3

Correct

Maya, a student in an arts and crafts class, wants to create a pattern using stars (*) in a specific format. She plans to use a program to help her construct the pattern.

Write a program that takes an integer as input and constructs the following pattern using nested for loops.

Input: 5

Output:

```
*
```

```
* *
```

```
* * *
```

```
* * * *
```

```
* * * * *
```

```
* * * *
```

```
* *
```

```
*
```

Answer: (penalty regime: 0 %)

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

	Input	Expected	Got	
✓	5	*	*	✓
		* *	* *	
		* * *	* * *	
		* * * *	* * * *	
		* * * * *	* * * * *	
		* * * *	* * * *	
		* * *	* * *	
		*	*	

Passed all tests! ✓

Status	Finished
Started	Sunday, 2 November 2025, 11:16 PM
Completed	Sunday, 2 November 2025, 11:33 PM
Duration	17 mins 11 secs

Question **1**

Correct

The number of rows N is passed as the input. The program must print the half pyramid using asterisk *.

Input Format:

The first line contains N.

Output Format:

N lines representing the half pyramid pattern using * (A single space is used to separate the *)

Boundary Conditions:

$2 \leq N \leq 100$

Example Input/Output 1:

Input:

5

Output:

```
*
```

```
**
```

```
***
```

```
****
```

```
*****
```

Example Input/Output 2:

Input:

3

Output:

```
*
```

```
**
```

```
***
```

For example:

Input	Result
5	* * * * * * * * * * * * * * *
3	* * * * * *

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     int n,i,j;
5     scanf("%d", &n);
6     for(i = 1; i <= n; ++i){
7         for(j = 1; j <= i; ++j){
8             printf("* ");
9         }
10        printf("\n");
11    }
12    return 0;
13 }
```

	Input	Expected	Got	
✓	5	* * * * * * * * * * * * * * *	* * * * * * * * * * * * * * *	✓
✓	3	* * * * * *	* * * * * *	✓

Passed all tests! 

Question 2

Correct

The number of rows N is passed as the input. The program must print the half pyramid using the numbers from 1 to N.

Input Format:

The first line contains N.

Output Format:

N lines representing the half pyramid pattern using the numbers from 1 to N. (A single space is used to separate the numbers)

Boundary Conditions:

$2 \leq N \leq 100$

Example Input/Output 1:

Input:

5

Output:

1
1 2
1 2 3
1 2 3 4
1 2 3 4 5

Example Input/Output 2:

Input:

3

Output:

1
1 2

1 2 3

For example:

Input	Result
5	1 1 2 1 2 3 1 2 3 4 1 2 3 4 5
3	1 1 2 1 2 3

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     int N;
5     scanf("%d", &N);
6     for (int i=1; i <=N; i++){
7         for(int j=1; j<=i; j++){
8             printf("%d ",j);
9         }
10        printf("\n");
11    }
12    return 0;
13 }
```

	Input	Expected	Got	
✓	5	1 1 2 1 2 3 1 2 3 4 1 2 3 4 5	1 1 2 1 2 3 1 2 3 4 1 2 3 4 5	✓
✓	3	1 1 2 1 2 3	1 1 2 1 2 3	✓

Passed all tests! 

Status	Finished
Started	Wednesday, 12 November 2025, 12:07 PM
Completed	Wednesday, 12 November 2025, 12:36 PM
Duration	28 mins 47 secs

Question 1

Correct

Given an array A of sorted integers and another non negative integer k, find if there exists 2 indices i and j such that $A[i] - A[j] = k$, $i \neq j$.

Input Format

1. First line is number of test cases T. Following T lines contain:
2. N, followed by N integers of the array
3. The non-negative integer k

Output format

Print 1 if such a pair exists and 0 if it doesn't.

Example

Input:

```
1
3 1 3 5
4
```

Output:

```
1
```

Input:

```
1
3 1 3 5
99
```

Output:

```
0
```

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main(){
3     int T;
4     scanf("%d", &T);
5     while(T--){
6         int N;
7         scanf("%d", &N);
8         int diff;
```

```

9      for (int i=0; i<N;i++)
10     scanf("%d", &A[i]);
11     int k;
12     scanf("%d", &k);
13     int i=0,j=1,found=0;
14     while(i<N && j<N){
15       int diff = A[j] - A[i];
16       if(i!=j && diff==k){
17         found=1;
18         break;
19       }
20       else if(diff<k)
21         j++;
22       else
23         i++;
24     }
25     printf("%d\n",found);
26   }
27   return 0;
28 }
29
30

```

	Input	Expected	Got	
✓	1 3 1 3 5 4	1	1	✓
✓	1 3 1 3 5 99	0	0	✓

Passed all tests! ✓

Question 2

Correct

Sam loves chocolates and starts buying them on the 1st day of the year. Each day of the year, x , is numbered from 1 to Y . On days when x is odd, Sam will buy x chocolates; on days when x is even, Sam will not purchase any chocolates.

Complete the code in the editor so that for each day N_i (where $1 \leq x \leq N \leq Y$) in array arr , the number of chocolates Sam purchased (during days 1 through N) is printed on a new line. This is a function-only challenge, so input is handled for you by the locked stub code in the editor.

Input Format

The program takes an array of integers.

The locked code in the editor handles reading the following input from `stdin`, assembling it into an array of integers (arr), and calling `calculate(arr)`.

The first line of input contains an integer, T (the number of test cases). Each line i of the T subsequent lines describes the i th test case as an integer, N_i (the number of days).

Constraints

$$1 \leq T \leq 2 \times 10^5$$

$$1 \leq N \leq 2 \times 10^6$$

$$1 \leq x \leq N \leq Y$$

Output Format

For each test case, T_i in arr , your `calculate` method should print the total number of chocolates Sam purchased by day N_i on a new line.

Sample Input 0

3
1
2
3

Sample Output 0

1
1
4

Explanation

Test Case 0: N = 1

Sam buys 1 chocolate on day 1, giving us a total of 1 chocolate. Thus, we print 1 on a new line.

Test Case 1: N = 2

Sam buys 1 chocolate on day 1 and 0 on day 2. This gives us a total of 1 chocolate. Thus, we print 1 on a new line.

Test Case 2: N = 3

Sam buys 1 chocolate on day 1, 0 on day 2, and 3 on day 3. This gives us a total of 4 chocolates. Thus, we print 4 on a new line.

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 void calculate(int arr[], int T){
3     for(int i=0; i<T; i++){
4         long long N = arr[i];
5         long long k = (N+1)/2;
6         printf("%lld\n",k*k);
7     }
8 }
9
10 int main(){
11     int T;
12     scanf("%d", &T);
13     int arr[T];
14     for (int i=0; i<T;i++){
15         scanf("%d",&arr[i]);
16     }
17     calculate(arr, T);
18     return 0;
19 }
20 }
```

	Input	Expected	Got	
✓	3	1	1	✓
	1	1	1	
	2	4	4	
	3			

	Input	Expected	Got	
10	1296	1296	1296	✓
71	2500	2500	2500	
100	1849	1849	1849	
86	729	729	729	
54	400	400	400	
40	25	25	25	
9	1521	1521	1521	
77	25	25	25	
9	49	49	49	
13	2401	2401	2401	
98				

Passed all tests! ✓

Question 3

Correct

The number of goals achieved by two football teams in matches in a league is given in the form of two lists. Consider:

- Football team A, has played three matches, and has scored { 1 , 2 , 3 } goals in each match respectively.
- Football team B, has played two matches, and has scored { 2, 4 } goals in each match respectively.
- Your task is to compute, for each match of team B, the total number of matches of team A, where team A has scored less than or equal to the number of goals scored by team B in that match.
- In the above case:
 - For 2 goals scored by team B in its first match, team A has 2 matches with scores 1 and 2.
 - For 4 goals scored by team B in its second match, team A has 3 matches with scores 1, 2 and 3.

Hence, the answer: {2, 3}.

Complete the code in the editor below. The program must return an array of m positive integers, one for each maxes[i] representing the total number of elements nums[j] satisfying $\text{nums}[j] \leq \text{maxes}[i]$ where $0 \leq j < n$ and $0 \leq i < m$, in the given order.

It has the following:

nums[nums[0],...nums[n-1]]: first array of positive integers
maxes[maxes[0],...maxes[n-1]]: second array of positive integers

Constraints

- $2 \leq n, m \leq 105$
- $1 \leq \text{nums}[j] \leq 109$, where $0 \leq j < n$.
- $1 \leq \text{maxes}[i] \leq 109$, where $0 \leq i < m$.

Input Format For Custom Testing

Input from stdin will be processed as follows and passed to the function.

The first line contains an integer n, the number of elements in nums.

The next n lines each contain an integer describing $\text{nums}[j]$ where $0 \leq j < n$.

The next line contains an integer m, the number of elements in maxes.

The next m lines each contain an integer describing $\text{maxes}[i]$ where $0 \leq i < m$.

Sample Case 0

Sample Input 0

4
1
4
2
4
2
3
5

Sample Output 0

2
4

Explanation 0

We are given $n = 4$, $\text{nums} = [1, 4, 2, 4]$, $m = 2$, and $\text{maxes} = [3, 5]$.

1. For $\text{maxes}[0] = 3$, we have 2 elements in nums ($\text{nums}[0] = 1$ and $\text{nums}[2] = 2$) that are $\leq \text{maxes}[0]$.
2. For $\text{maxes}[1] = 5$, we have 4 elements in nums ($\text{nums}[0] = 1$, $\text{nums}[1] = 4$, $\text{nums}[2] = 2$, and $\text{nums}[3] = 4$) that are $\leq \text{maxes}[1]$.

Thus, the function returns the array $[2, 4]$ as the answer.

Sample Case 1

Sample Input 1

5
2
10
5
4
8
4
3
1
7
8

Sample Output 1

1
0

3

4

Explanation 1

We are given, n = 5, nums = [2, 10, 5, 4, 8], m = 4, and maxes = [3, 1, 7, 8].

1. For maxes[0] = 3, we have 1 element in nums (nums[0] = 2) that is \leq maxes[0].
2. For maxes[1] = 1, there are 0 elements in nums that are \leq maxes[1].
3. For maxes[2] = 7, we have 3 elements in nums (nums[0] = 2, nums[2] = 5, and nums[3] = 4) that are \leq maxes[2].
4. For maxes[3] = 8, we have 4 elements in nums (nums[0] = 2, nums[2] = 5, nums[3] = 4, and nums[4] = 8) that are \leq maxes[3].

Thus, the function returns the array [1, 0, 3, 4] as the answer.

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<stdlib.h>
3 int compare(const void*a,const void *b){
4     return(*(int*)a-*(int *)b);
5 }
6 int upper_bound(int arr[],int n,int key){
7     int low=0,high = n;
8     while(low<high){
9         int mid=(low+high)/2;
10        if(arr[mid]<=key)
11            low=mid+1;
12        else
13            high=mid;
14    }
15    return low;
16 }
17 int main(){
18     int n,m;
19     scanf("%d",&n);
20     int nums[n];
21     for(int i=0;i<n;i++)
22         scanf("%d", &nums[i]);
23         scanf("%d", &m);
24     int maxes[m];
25     for (int i=0;i<m;i++)
26         scanf("%d",&maxes[i]);
27     qsort(nums,n,sizeof(int),compare);
28     for (int i=0;i<m;i++){
29         int count=upper_bound(nums,n,maxes[i]);
30         printf("%d\n",count);
31     }
32     return 0;
33 }
34 
```

	Input	Expected	Got	
✓	4 1 4 2 4 2 3 5	2 4	2 4	✓
✓	5 2 10 5 4 8 4 3 1 7 8	1 0 3 4	1 0 3 4	✓

Passed all tests! ✓

Status	Finished
Started	Wednesday, 19 November 2025, 12:03 PM
Completed	Wednesday, 19 November 2025, 12:53 PM
Duration	49 mins 51 secs

Question 1

Correct

Sunny and Johnny like to pool their money and go to the ice cream parlor. Johnny never buys the same flavor that Sunny does. The only other rule they have is that they spend all of their money.

Given a list of prices for the flavors of ice cream, select the two that will cost all of the money they have.

For example, they have $m = 6$ to spend and there are flavors costing $\text{cost} = [1, 2, 3, 4, 5, 6]$. The two flavors costing **1** and **5** meet the criteria. Using **1**-based indexing, they are at indices **1** and **4**.

Function Description

Complete the code in the editor below. It should return an array containing the indices of the prices of the two flavors they buy.

It has the following:

- m : an integer denoting the amount of money they have to spend
- cost : an integer array denoting the cost of each flavor of ice cream

Input Format

The first line contains an integer, t , denoting the number of trips to the ice cream parlor. The next t sets of lines each describe a visit. Each trip is described as follows:

1. The integer m , the amount of money they have pooled.
2. The integer n , the number of flavors offered at the time.
3. n space-separated integers denoting the cost of each flavor: $\text{cost}[\text{cost}[1], \text{cost}[2], \dots, \text{cost}[n]]$.

Note: The index within the cost array represents the flavor of the ice cream purchased.

Constraints

- $1 \leq t \leq 50$
- $2 \leq m \leq 10^4$
- $2 \leq n \leq 10^4$
- $1 \leq \text{cost}[i] \leq 10^4$, " $i \in [1, n]$
- There will always be a unique solution.

Output Format

For each test case, print two space-separated integers denoting the indices of the two flavors purchased, in ascending order.

Sample Input

```
2
4
5
1 4 5 3 2
4
4
2 2 4 3
```

Sample Output

```
1 4
1 2
```

Explanation

Sunny and Johnny make the following two trips to the parlor:

1. The first time, they pool together $m = 4$ dollars. Of the five flavors available that day, flavors **1** and **4** have a total cost of $1 + 3 = 4$.
2. The second time, they pool together $m = 4$ dollars. Of the four flavors available that day, flavors **1** and **2** have a total cost of $2 + 2 = 4$.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2
3 int main(){
4     int t;
5     scanf("%d", &t);
6
7     while (t--){
8         int m,n;
9         scanf("%d", &m);
10        scanf("%d", &n);
11
12        int cost[n];
13        for(int i=0;i<n;i++)
14            scanf("%d",&cost[i]);
15        int i,j,found=0;
16        for(i=0;i<n-1&&!found;i++){
17            for(j=i+1;j<n;j++){
18                if(cost[i]+cost[j]==m){
19                    printf("%d %d\n",i+1,j+1);
20                    found=1;
21                    break;
22            }
23        }
24    }
25}
```

```
--  
23 }  
24  
25 }  
26 }  
27 return 0;  
28 }
```

[]

	Input	Expected	Got	
✓	2	1 4	1 4	✓
	4	1 2	1 2	
	5			
	1 4 5 3 2			
	4			
	4			
	2 2 4 3			

Passed all tests! ✓

//

Question 2

Correct

Numeros the Artist had two lists that were permutations of one another. He was very proud. Unfortunately, while transporting them from one exhibition to another, some numbers were lost out of the first list. Can you find the missing numbers?

As an example, the array with some numbers missing, **arr = [7, 2, 5, 3, 5, 3]**. The original array of numbers **brr = [7, 2, 5, 4, 6, 3, 5, 3]**. The numbers missing are **[4, 6]**.

Notes

- If a number occurs multiple times in the lists, you must ensure that the frequency of that number in both lists is the same. If that is not the case, then it is also a missing number.
- You have to print all the missing numbers in ascending order.
- Print each missing number once, even if it is missing multiple times.
- The difference between maximum and minimum number in the second list is less than or equal to **100**.

Complete the code in the editor below. It should return an array of missing numbers.

It has the following:

- arr: the array with missing numbers
- brr: the original array of numbers

Input Format

There will be four lines of input:

n - the size of the first list, **arr**

The next line contains **n** space-separated integers **arr[i]**

m - the size of the second list, **brr**

The next line contains **m** space-separated integers **brr[i]**

Constraints

- **1 ≤ n, m ≤ 2 × 10⁵**
- **n ≤ m**
- **1 ≤ brr[i] ≤ 2 × 10⁴**
- **X_{max} – X_{min} < 101**

Output Format

Output the missing numbers in ascending order.

Sample Input

```
10
203 204 205 206 207 208 203 204 205 206
13
203 204 204 205 206 207 205 208 203 206 205 206 204
```

Sample Output

```
204 205 206
```

Explanation

204 is present in both arrays. Its frequency in **arr** is **2**, while its frequency in **brr** is **3**. Similarly, **205** and **206** occur twice in **arr**, but three times in **brr**. The rest of the numbers have the same frequencies in both lists.

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<stdlib.h>
3
4 int main(){
5     int n,m;
6     scanf("%d", &n);
7     int arr[n];
8     for (int i=0;i<n;i++)
9         scanf("%d",&arr[i]);
10    scanf("%d", &m);
11    int brr[m];
12    for (int i=0;i<m;i++)
13        scanf("%d", &brr[i]);
14    int min =20000,max=0;
15    for(int i=0;i<m;i++){
16        if(brr[i]<min)
17            min=brr[i];
18        if(brr[i]>max)
19            max=brr[i];
20    }
21    int range=max-min+1;
22    int freqB[range];
23    int freqA[range];
24    for (int i = 0;i<range;i++){
25        freqB[i]=0;
26        freqA[i]=0;
27    }
28    for(int i=0;i<m;i++)
29        freqB[brr[i]-min]++;
30    for(int i=0;i<n;i++)
31        freqA[arr[i]-min]++;
32    for (int i = 0;i<range;i++){
33        if(freqB[i] > freqA[i])
34            cout<<arr[i]<<endl;
35    }
36}
```

```
35     printf("%d ", i+min);
36 }
37 return 0;
38
39 }
```



	Input	Expected	Got
✓	10 203 204 205 206 207 208 203 204 205 206 13 203 204 204 205 206 207 205 208 203 206 205 206 204	204 205 206	204 205 206

Passed all tests!



Question 3

Correct

Watson gives Sherlock an array of integers. His challenge is to find an element of the array such that the sum of all elements to the left is equal to the sum of all elements to the right. For instance, given the array **arr = [5, 6, 8, 11]**, **8** is between two subarrays that sum to **11**. If your starting array is **[1]**, that element satisfies the rule as left and right sum to **0**.

You will be given arrays of integers and must determine whether there is an element that meets the criterion.

Complete the code in the editor below. It should return a string, either YES if there is an element meeting the criterion or NO otherwise.

It has the following:

- arr: an array of integers

Input Format

The first line contains **T**, the number of test cases.

The next **T** pairs of lines each represent a test case.

- The first line contains **n**, the number of elements in the array **arr**.
- The second line contains **n** space-separated integers **arr[i]** where **0 ≤ i < n**.

Constraints

- **1 ≤ T ≤ 10**
- **1 ≤ n ≤ 10⁵**
- **1 ≤ arr[i] ≤ 2 × 10⁴**
- **0 ≤ i ≤ n**

Output Format

For each test case print YES if there exists an element in the array, such that the sum of the elements on its left is equal to the sum of the elements on its right; otherwise print NO.

Sample Input 0

```
2
3
1 2 3
4
1 2 3 3
```

Sample Output 0

NO

YES

Explanation 0

For the first test case, no such index exists.

For the second test case, $\text{arr}[0] + \text{arr}[1] = \text{arr}[3]$, therefore index **2** satisfies the given conditions.

Sample Input 1

```

3
5
1 1 4 1 1
4
2 0 0 0
4
0 0 2 0

```

Sample Output 1

YES
YES
YES

Explanation 1

In the first test case, $\text{arr}[2] = 4$ is between two subarrays summing to **2**.

In the second case, $\text{arr}[0] = 2$ is between two subarrays summing to **0**.

In the third case, $\text{arr}[2] = 2$ is between two subarrays summing to **0**.

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2
3 int main(){
4     int T;
5     scanf("%d ",&T);
6     while (T--){
7         int n;
8         scanf("%d", &n);
9         int arr[n];
10        long long total_sum=0;
11        for (int i =0;i<n;i++){
12            scanf("%d", &arr[i]);
13            total_sum+=arr[i];
14        }
15    }

```

```

16
17     long long left_sum = 0;
18     int found=0;
19     for (int i=0;i<n;i++){
20         long long right_sum =total_sum-left_sum-arr[i];
21         if (left_sum == right_sum){
22             found=1;
23             break;
24         }
25         left_sum +=arr[i];
26     }
27     if (found)
28         printf("YES\n");
29     else
30         printf("NO\n");
31 }

```

[]

	Input	Expected	Got	
✓	3 5 1 1 4 1 1 4 2 0 0 0 4 0 0 2 0	YES YES YES YES	YES YES YES	✓
✓	2 3 1 2 3 4 1 2 3 3	NO YES	NO YES	✓

//

Passed all tests! ✓

Status	Finished
Started	Saturday, 22 November 2025, 10:18 PM
Completed	Saturday, 22 November 2025, 11:36 PM
Duration	1 hour 18 mins

Question 1

Correct

Coders here is a simple task for you, you have given an array of size **N** and an integer **M**.

Your task is to calculate the ***difference between maximum sum and minimum sum of N-M elements*** of the given array.

Constraints: **$1 \leq t \leq 10$** **$1 \leq n \leq 1000$** **$1 \leq a[i] \leq 1000$** **Input:**

First line contains an integer **T** denoting the number of testcases.

First line of every testcase contains two integer **N** and **M**.

Next line contains **N** space separated integers denoting the elements of array

Output:

For every test case print your answer in new line

SAMPLE INPUT

1

5 1

1 2 3 4 5

SAMPLE OUTPUT

4

Explanation

M is 1 and N is 5 so you have to calculate maximum and minimum sum using (5-1 =) 4 elements.

Maximum sum using the 4 elements would be (2+3+4+5=)14.

Minimum sum using the 4 elements would be (1+2+3+4=)10.

Difference will be 14-10=4.

Answer: (penalty regime: 0 %)

```

1 #include <stdio.h>
2 int main(){
3     int t;
4     scanf("%d", &t);
5     while (t--){
6         int m,n,i,j,temp;
7         scanf("%d %d", &n, &m);
8         int a[1000];
9         for(i=0;i<n;i++){
10             scanf("%d", &a[i]);
11
12         }
13         for(i=0;i<n-1;i++){
14             for(j=0;j<n-i-1;j++){
15                 if(a[j] > a[j+1]){
16                     temp = a[j];
17                     a[j] = a[j + 1];
18                     a[j + 1 ] = temp;
19                 }
20             }
21         }
22         int k=n-m;
23         long long minSum = 0, maxSum = 0;
24
25         for (i = 0;i<k;i++){
26             minSum +=a[i];
27
28         }
29         for (i =n-k; i<n; i++){
30             maxSum += a[i];
31         }
32         printf("%lld\n", maxSum-minSum);
33
34     }
35     return 0;
36 }
```

	Input	Expected	Got	
✓	1	4	4	✓
	5 1			
	1 2 3 4 5			

Passed all tests! ✓

Question 2

Correct

A new deadly virus has infected large population of a planet. A brilliant scientist has discovered a new strain of virus which can cure this disease. Vaccine produced from this virus has various strength depending on midichlorians count. A person is cured only if midichlorians count in vaccine batch is more than midichlorians count of person. A doctor receives a new set of report which contains midichlorians count of each infected patient, Practo stores all vaccine doctor has and their midichlorians count. You need to determine if doctor can save all patients with the vaccines he has. The number of vaccines and patients are equal.

Input Format

First line contains the number of vaccines - N. Second line contains N integers, which are strength of vaccines. Third line contains N integers, which are midichlorians count of patients.

Output Format

Print a single line containing '**Yes**' or '**No**'.

Input Constraint

1 < N < 10

Strength of vaccines and midichlorians count of patients fit in integer.

SAMPLE INPUT

5

123 146 454 542 456

100 328 248 689 200

SAMPLE OUTPUT

No

Answer: (penalty regime: 0 %)

```

1 #include <stdio.h>
2 void sort(int arr[], int n){
3     int temp;
4     for (int i=0;i<n-1;i++){
5         for (int j=i+1;j<n;j++){
6             if(arr[i] > arr[j]){
7                 temp=arr[i];
8                 arr[i]=arr[j];
9                 arr[j]=temp;
10            }
11        }
12    }
13 }
14 int main(){
15     int n;
16     scanf("%d", &n);
17     int vaccine[n], patient[n];
18     for (int i=0;i<n;i++)
19         scanf("%d", &vaccine[i]);
20     for (int i =0;i<n;i++)
21         scanf("%d", &patient[i]);
22     sort(vaccine, n);
23     sort(patient, n);
24     for (int i=0;i<n;i++){
25         if (vaccine[i] <= patient[i]){
26             printf("No");
27             return 0;
28         }
29     }
30     printf("Yes");
31     return 0;
32 }
```

	Input	Expected	Got	
✓	5 123 146 454 542 456 100 328 248 689 200	No	No	✓

Passed all tests! ✓

Question 3

Correct

You are given an array **A** of non-negative integers of size **m**. Your task is to sort the array in non-decreasing order and print out the original indices of the new sorted array.

Example:

$A=\{4,5,3,7,1\}$

After sorting the new array becomes $A=\{1,3,4,5,7\}$.

The required output should be "4 2 0 1 3"

INPUT :

The first line of input consists of the size of the array

The next line consists of the array of size m

OUTPUT :

Output consists of a single line of integers

CONSTRAINTS:

$1 \leq m \leq 106$

$0 \leq A[i] \leq 106$

NOTE: The indexing of the array starts with 0.

SAMPLE INPUT

5

4 5 3 7 1

SAMPLE OUTPUT

4 2 0 1 3

Answer: (penalty regime: 0 %)

```

1 #include <stdio.h>
2 #include <stdlib.h>
3 struct Pair{
4     int value;
5     int index;
6 };
7 int compare(const void *a,const void *b){
8     struct Pair *x = (struct Pair *)a;
9     struct Pair *y = (struct Pair *)b;
10    if (x->value <y->value) return -1;
11    else if (x->value > y->value) return 1;
12    else return 0;
13 }
14 int main(){
15     int m;
16     scanf("%d", &m);
17     struct Pair arr[m];
18     for (int i=0; i<m;i++){
19         scanf("%d", &arr[i].value);
20         arr[i].index =i;
21     }
22     qsort(arr, m, sizeof(struct Pair), compare);
23     for (int i =0;i<m;i++){
24         printf("%d", arr[i].index);
25         if (i !=m-1)
26             printf(" ");
27     }
28     return 0;
29 }
30
31
32
33
34 }
```



	Input	Expected	Got	
✓	5 4 5 3 7 1	4 2 0 1 3	4 2 0 1 3	✓

Passed all tests! ✓

Status	Finished
Started	Sunday, 23 November 2025, 9:30 PM
Completed	Sunday, 23 November 2025, 10:27 PM
Duration	56 mins 55 secs

Question 1

Correct

You are given a two-dimensional 3*3 array starting from A [0][0]. You should add the alternate elements of the array and print its sum. It should print two different numbers the first being sum of A 0 0, A 0 2, A 1 1, A 2 0, A 2 2 and A 0 1, A 1 0, A 1 2, A 2 1.

Input Format

First and only line contains the value of array separated by single space.

A 0 0	A 0 1	A 0 2
4	6	9
A 1 0	A 1 1	A 1 2
2	5	8
A 2 0	A 2 1	A 2 2
1	3	7

Output Format

First line should print sum of A 0 0, A 0 2, A 1 1, A 2 0, A 2 2

Second line should print sum of A 0 1, A 1 0, A 1 2, A 2 1

SAMPLE INPUT

1 2 3 4 5 6 7 8 9

SAMPLE OUTPUT

25

20

Answer: (penalty regime: 0 %)

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

```
2 int main() {
3     int a[9],i;
4     int s1=0,s2=0;
5     for(i=0;i<9;i++){
6         scanf("%d",&a[i]);
7
8     }
9     s1=a[0]+a[2]+a[4]+a[6]+a[8];
10    s2=a[1]+a[3]+a[5]+a[7];
11    printf("%d\n%d\n",s1,s2);
12    return 0;
13 }
```

	Input	Expected	Got	
✓	1 2 3 4 5 6 7 8 9	25 20	25 20	✓
✓	21 422 423 443 586 645 657 846 904	2591 2356	2591 2356	✓

Passed all tests! ✓

Question 2

Correct

Microsoft has come to hire interns from your college. N students got shortlisted out of which few were males and a few females. All the students have been assigned talent levels. Smaller the talent level, lesser is your chance to be selected. Microsoft wants to create the result list where it wants the candidates sorted according to their talent levels, but there is a catch. This time Microsoft wants to hire female candidates first and then male candidates.

The task is to create a list where first all-female candidates are sorted in a descending order and then male candidates are sorted in a descending order.

Input Format

The first line contains an integer N denoting the number of students. Next, N lines contain two space-separated integers, ai and bi.

The first integer, ai will be either 1(for a male candidate) or 0(for female candidate).

The second integer, bi will be the candidate's talent level.

Constraints

$1 \leq N \leq 10^5$

$0 \leq ai \leq 1$

$1 \leq bi \leq 10^9$

Output Format

Output space-separated integers, which first contains the talent levels of all female candidates sorted in descending order and then the talent levels of male candidates in descending order.

SAMPLE INPUT

```

0 3
1 6
0 2
0 7
1 15

```

SAMPLE OUTPUT

7 3 2 15 6

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 struct data
3 {
4     int gen;int tal;
5 };
6 int main()
7 {
8     int n;
9     scanf("%d",&n);
10    struct data a[n];
11    for(int i=0;i<n;i++)
12        scanf("%d %d",&a[i].gen,&a[i].tal);
13    for(int i=0;i<n-1;i++)
14    {
15        for(int j=0;j<n-i-1;++j)
16        {
17            if(a[j].tal<a[j+1].tal)
18            {
19                struct data temp=a[j];
20                a[j]=a[j+1];
21                a[j+1]=temp;
22            }
23        }
24    }
25    for(int i=0;i<n;i++)
26    {
27        if(a[i].gen==0)
28            printf("%d ",a[i].tal);
29    } for(int i=0;i<n;++i)
30    {
31        if(a[i].gen==1)
32            printf("%d ",a[i].tal);
33    }
34 }
35
36

```

	Input	Expected	Got
✓	5 0 3 1 6 0 2 0 7 1 15	7 3 2 15 6	7 3 2 15 6
✓	6 0 1 0 26 0 39 0 37 0 7 0 13	39 37 26 13 7 1	39 37 26 13 7 1
✓	12 1 12 1 14 1 18 1 1 1 2 1 3 1 5 1 8 1 9 1 10 0 29 0 31	31 29 18 14 12 10 9 8 5 3 2 1	31 29 18 14 12 10 9 8 5 3 2 1
✓	12 0 12 1 12 0 12 1 12 0 12 0 12 1 12 0 12 1 12 1 12 0 12 1 12	12 12 12 12 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12

Passed all tests! ✓

Question 3

Correct

Shyam Lal, a wealthy landlord from the state of Rajasthan, being an old fellow and tired of doing hard work, decided to sell all his farmland and to live rest of his life with that money. No other farmer is rich enough to buy all his land so he decided to partition the land into rectangular plots of different sizes with different cost per unit area. So, he sold these plots to the farmers but made a mistake. Being illiterate, he made partitions that could be overlapping. When the farmers came to know about it, they ran to him for compensation of extra money they paid to him. So, he decided to return all the money to the farmers of that land which was overlapping with other farmer's land to settle down the conflict. All the portion of conflicted land will be taken back by the landlord.

To decide the total compensation, he has to calculate the total amount of money to return back to farmers with the same cost they had purchased from him. Suppose, Shyam Lal has a total land area of **1000 x 1000** equal square blocks where each block is equivalent to a unit square area which can be represented on the co-ordinate axis. Now find the total amount of money, he has to return to the farmers. Help Shyam Lal to accomplish this task.

Input Format:

The first line of the input contains an integer **N**, denoting the total number of land pieces he had distributed. Next **N** line contains the **5** space separated integers **(X1, Y1), (X2, Y2)** to represent a rectangular piece of land, and cost per unit area **C**.

(X1, Y1) and **(X2, Y2)** are the locations of first and last square block on the diagonal of the rectangular region.

Output Format:

Print the total amount he has to return to farmers to solve the conflict.

Constraints:

$$1 \leq N \leq 100$$

$$1 \leq X1 \leq X2 \leq 1000$$

$$1 \leq Y1 \leq Y2 \leq 1000$$

$1 \leq C \leq 1000$ **SAMPLE INPUT**

3

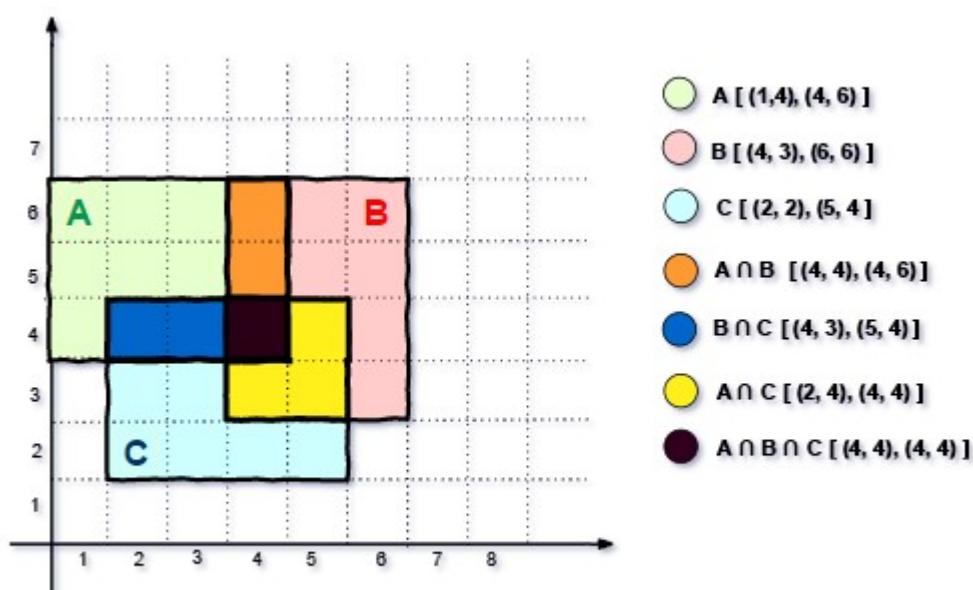
1 4 4 6 1

4 3 6 6 2

2 2 5 4 3

SAMPLE OUTPUT

35

Explanation

For given sample input (see given graph for reference), compensation money for different farmers is as follows:

Farmer with land area A: $C_1 = 5 * 1 = 5$

Farmer with land area B: $C_2 = 6 * 2 = 12$

Farmer with land area C: $C_3 = 6 * 3 = 18$

Total Compensation Money = $C_1 + C_2 + C_3 = 5 + 12 + 18 = 35$

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<string.h>
3 int main() {
4     int N;
5     scanf("%d", &N);
6     int X1[105], Y1_[105], X2[105], Y2[105], C[105];
7     for(int i=0;i<N;i++){
8         scanf("%d %d %d %d", &X1[i], &Y1_[i], &X2[i], &Y2[i], &C[i]);
9     }
10    static int covercount[1001][1001];
11    memset(covercount, 0, sizeof(covercount));
12    for (int k=0;k<N;k++) {
13        for(int x=X1[k]; x<=X2[k]; x++){
14            for (int y=Y1_[k]; y<=Y2[k]; y++) {
15                covercount[x][y]++;
16            }
17        }
18    }
19    long long totalcompensation = 0;
20    for(int k=0 ;k<N;k++) {
21        long long overlapcells =0;
22        for (int x=X1[k]; x<=X2[k]; x++) {
23            for(int y=Y1_[k];y <=Y2[k];y++) {
24                if (covercount[x][y] >1){
25                    overlapcells++;
26                }
27            }
28        }
29        totalcompensation += overlapcells * C[k];
30    }
31    printf("%lld",totalcompensation);
32    return 0;
33}
34}
35

```

	Input	Expected	Got	
✓	3 1 4 4 6 1 4 3 6 6 2 2 2 5 4 3	35	35	✓

	Input	Expected	Got	
✓	1 48 12 49 27 8	0	0	✓
✓	3 88 34 99 76 44 82 65 94 100 81 58 16 65 66 7	10500	10500	✓

Passed all tests! ✓

Status	Finished
Started	Sunday, 23 November 2025, 8:28 PM
Completed	Sunday, 23 November 2025, 8:40 PM
Duration	11 mins 34 secs

Question **1**

Correct

Given a string, **s**, consisting of alphabets and digits, find the frequency of each digit in the given string.

Input Format

The first line contains a string, **num** which is the given number.

Constraints

1 ≤ len(num) ≤ 1000

All the elements of num are made of English alphabets and digits.

Output Format

Print ten space-separated integers in a single line denoting the frequency of each digit from **0** to **9**.

Sample Input 0

a11472o5t6

Sample Output 0

0 2 1 0 1 1 1 1 0 0

Explanation 0

In the given string:

- **1** occurs two times.
- **2, 4, 5, 6** and **7** occur one time each.

The remaining digits **0, 3, 8** and **9** don't occur at all.

Answer: (penalty regime: 0 %)

```

1 #include <stdio.h>
2 #include<string.h>
3 int main()
4 {
5     char s[1001];
6     int freq[10]={0};
7     scanf("%s",s);
8     for(int i=0;s[i]!='\0';i++)
9     {
10         if(s[i]>='0' && s[i]<='9')
11         {
12             freq[s[i]-'0']++;
13         }
14     }
15     for(int i=0;i<10;i++)
16     {
17         printf("%d",freq[i]);
18         if(i<9)
19             printf(" ");
20     }
21     return 0;
22 }
23 }
```



	Input	Expected	Got	
✓	a11472o5t6	0 2 1 0 1 1 1 1 0 0	0 2 1 0 1 1 1 1 0 0	✓
✓	lw4n88j12n1	0 2 1 0 1 0 0 0 2 0	0 2 1 0 1 0 0 0 2 0	✓
✓	1v888861256338ar0ekk	1 1 1 2 0 1 2 0 5 0	1 1 1 2 0 1 2 0 5 0	✓

Passed all tests!

Question 2

Correct

Given a sentence, **s**, print each word of the sentence in a new line.

Input Format

The first and only line contains a sentence, **s**.

Constraints

1 ≤ len(s) ≤ 1000

Output Format

Print each word of the sentence in a new line.

Sample Input 0

This is C

Sample Output 0

This

is

C

Explanation 0

In the given string, there are three words ["This", "is", "C"]. We have to print each of these words in a new line.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     char s[1001];
```

```
5     fgets(s,sizeof(s),stdin);
6     for(int i=0;s[i]!='\0';i++)
7     {
8         if(s[i]==' ')
9         {
10            printf("\n");
11        }
12        else
13        {
14            printf("%c",s[i]);
15        }
16    }
17    return 0;
18 }
```

[]

	Input	Expected	Got	
✓	This is C	This is C	This is C	✓
✓	Learning C is fun	Learning C is fun	Learning C is fun	✓

Passed all tests! ✓

Question 3

Correct

Input Format

You are given two strings, **a** and **b**, separated by a new line. Each string will consist of lower case Latin characters ('a'-'z').

Output Format

In the first line print two space-separated integers, representing the length of **a** and **b** respectively.

In the second line print the string produced by concatenating **a** and **b** (**a + b**).

In the third line print two strings separated by a space, **a'** and **b'**. **a'** and **b'** are the same as **a** and **b**, respectively, except that their first characters are swapped.

Sample Input

abcd

ef

Sample Output

4 2

abcdef

ebcd af

Explanation $a = "abcd"$ $b = "ef"$ $|a| = 4$ $|b| = 2$ $a + b = "abcdef"$ $a' = "ebcd"$

```
b' = "af"
```

Answer: (penalty regime: 0 %)

```

1 #include <stdio.h>
2 #include <string.h>
3 int main()
4 {
5     char a[1001],b[1001];
6     scanf("%s",a);
7     scanf("%s",b);
8     printf("%lu %lu\n",strlen(a),strlen(b));
9     printf("%s%s\n",a,b);
10    char a_prime[1001],b_prime[1001];
11    strcpy(a_prime,a);
12    strcpy(b_prime,b);
13    if(strlen(a)>0 && strlen(b)>0)
14    {
15        char temp=a_prime[0];
16        a_prime[0]=b_prime[0];
17        b_prime[0]=temp;
18    }
19    printf("%s %s\n",a_prime,b_prime);
20    return 0;
21 }
```



	Input	Expected	Got	
✓	abcd ef	4 2 abcdef ebcd af	4 2 abcdef ebcd af	✓

Passed all tests! ✓

Status	Finished
Started	Monday, 24 November 2025, 1:33 AM
Completed	Monday, 24 November 2025, 1:53 AM
Duration	19 mins 37 secs

Question 1

Correct

Danny has a possible list of passwords of Manny's facebook account. All passwords length is odd. But Danny knows that Manny is a big fan of palindromes. So, his password and reverse of his password both should be in the list.

You have to print the length of Manny's password and it's middle character.

Note: The solution will be unique.

INPUT

The first line of input contains the integer N, the number of possible passwords.

Each of the following N lines contains a single word, its length being an odd number greater than 2 and lesser than **14**. All characters are lowercase letters of the English alphabet.

OUTPUT

The first and only line of output must contain the length of the correct password and its central letter.

CONSTRAINTS

$1 \leq N \leq 100$

SAMPLE INPUT

4

abc

def

feg

cba

SAMPLE OUTPUT

3 b

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     int N;
5     scanf("%d", &N);
6     char words[110][20];
7     for (int i = 0;i<N;i++){
8         scanf("%s", words[i]);
9     }
10    for (int i=0;i<N;i++){
11        char rev[20];
12        int len =strlen(words[i]);
13        for (int j = 0;j<len;j++){
14            rev[j] = words[i][len - 1 - j];
15        }
16        rev[len]='\0';
17        for (int k=0;k<N;k++){
18            if (strcmp(rev, words[k])==0){
19                printf("%d %c\n",len,words[i][len / 2]);
20                return 0;
21            }
22        }
23    }
24 }
25 return 0;
26 }
```

	Input	Expected	Got	
✓	4 abc def feg cba	3 b	3 b	✓

Passed all tests! ✓

Question 2

Correct

Joey loves to eat Pizza. But he is worried as the quality of pizza made by most of the restaurants is deteriorating. The last few pizzas ordered by him did not taste good 😞 . Joey is feeling extremely hungry and wants to eat pizza. But he is confused about the restaurant from where he should order. As always he asks Chandler for help.

Chandler suggests that Joey should give each restaurant some points, and then choose the restaurant having **maximum points**. If more than one restaurant has same points, Joey can choose the one with **lexicographically smallest** name.

Joey has assigned points to all the restaurants, but can't figure out which restaurant satisfies Chandler's criteria. Can you help him out?

Input:

First line has N, the total number of restaurants.

Next N lines contain Name of Restaurant and Points awarded by Joey, separated by a space. Restaurant name has **no spaces**, all lowercase letters and will not be more than 20 characters.

Output:

Print the name of the restaurant that Joey should choose.

Constraints:

$$1 \leq N \leq 10^5$$

$$1 \leq \text{Points} \leq 10^6$$

SAMPLE INPUT

3

Pizzeria 108

Dominos 145

Pizzapizza 49

SAMPLE OUTPUT

Dominos

Explanation

Dominos has maximum points.

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<string.h>
3 int main(){
4     int N;
5     scanf("%d", &N);
6     char name[25], bestName[25];
7     long long points,maxPoints=-1;
8     for(int i=0;i<N;i++){
9         scanf("%s %lld", name, &points);
10        if(points > maxPoints){
11            maxPoints=points;
12            strcpy(bestName, name);
13        }
14        else if (points==maxPoints){
15            if(strcmp(name, bestName)<0){
16                strcpy(bestName,name);
17            }
18        }
19    }
20    printf("%s", bestName);
21    return 0;
22 }
```

	Input	Expected	Got	
✓	3 Pizzeria 108 Dominos 145 Pizzapizza 49	Dominos	Dominos	✓

Passed all tests! ✓

Question 3

Correct

These days Bechan Chacha is depressed because his crush gave him list of mobile number some of them are valid and some of them are invalid. Bechan Chacha has special power that he can pick his crush number only if he has valid set of mobile numbers. Help him to determine the valid numbers.

You are given a string "S" and you have to determine whether it is Valid mobile number or not. Mobile number is valid only if it is of length 10 , consists of numeric values and it shouldn't have prefix zeroes.

Input:

First line of input is T representing total number of test cases.

Next T line each representing "S" as described in in problem statement.

Output:

Print "YES" if it is valid mobile number else print "NO".

Note: Quotes are for clarity.

Constraints:

$1 \leq T \leq 10^3$

sum of string length $\leq 10^5$

SAMPLE INPUT

3

1234567890

0123456789

0123456.87

SAMPLE OUTPUT

YES

NO

NO

Answer: (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<string.h>
3 #include<cctype.h>
4 int isValid(char s[])
5 {
6     int len = strlen(s);
7     if(len !=10)
8         return 0;
9     if (s[0]=='0')
10        return 0;
11    for(int i=0;i<len;i++)
12    {
13        if(!isdigit(s[i]))
14            return 0;
15    }
16    return 1;
17
18}
19 int main()
20 {
21     int T;
22     scanf("%d", &T);
23     while(T--)
24     {
25         char s[200];
26         scanf("%s", s);
27         if(isValid(s))
28             printf("YES\n");
29         else
30             printf("NO\n");
31     }
32     return 0;
33 }
34
35

```

	Input	Expected	Got	
✓	3	YES	YES	✓
	1234567890	NO	NO	
	0123456789	NO	NO	
	0123456.87			

Passed all tests! 

Status	Finished
Started	Tuesday, 25 November 2025, 8:34 PM
Completed	Tuesday, 25 November 2025, 9:46 PM
Duration	1 hour 12 mins

Question 1

Correct

Given an array of numbers, find the index of the smallest array element (the pivot), for which the sums of all elements to the left and to the right are equal. The array may not be reordered.

Example

arr=[1,2,3,4,6]

- the sum of the first three elements, $1+2+3=6$. The value of the last element is 6.
- Using zero based indexing, arr[3]=4 is the pivot between the two subarrays.
- The index of the pivot is 3.

Function Description

Complete the function balancedSum in the editor below.

balancedSum has the following parameter(s):

int arr[n]: an array of integers

Returns:

int: an integer representing the index of the pivot

Constraints

- $3 \leq n \leq 10^5$
- $1 \leq arr[i] \leq 2 \times 10^4$, where $0 \leq i < n$
- It is guaranteed that a solution always exists.

Input Format for Custom Testing

Input from stdin will be processed as follows and passed to the function.

The first line contains an integer n, the size of the array arr.

Each of the next n lines contains an integer, arr[i], where $0 \leq i < n$.

Sample Case 0**Sample Input 0****STDIN Function Parameters**

4 → arr[] size n = 4
1 → arr = [1, 2, 3, 3]

2

3

3

Sample Output 0

2

Explanation 0

- The sum of the first two elements, $1+2=3$. The value of the last element is 3.
- Using zero based indexing, $\text{arr}[2]=3$ is the pivot between the two subarrays.
- The index of the pivot is 2.

Sample Case 1

Sample Input 1

STDIN Function Parameters

```
-----  
3 → arr[] size n = 3  
1 → arr = [1, 2, 1]  
2  
1
```

Sample Output 1

1

Explanation 1

- The first and last elements are equal to 1.
- Using zero based indexing, $\text{arr}[1]=2$ is the pivot between the two subarrays.
- The index of the pivot is 1.

Answer: (penalty regime: 0 %)

Reset answer

```
1 *  
2 * Complete the 'balancedSum' function below.  
3 *  
4 * The function is expected to return an INTEGER.  
5 * The function accepts INTEGER_ARRAY arr as parameter.  
6 */  
7  
8 int balancedSum(int arr_count, int* arr)  
9 {
```

```
10 long long totalsum=0;
11 for(int i=0;i<arr_count;i++){
12     totalsum+=arr[i];
13 }
14 long long leftsum=0;
15 for(int i=0;i<arr_count;i++){
16     long long rightsum=totalsum-leftsum-arr[i];
17     if(leftsum == rightsum){
18         return i;
19     }
20     leftsum+=arr[i];
21 }
22 return 1;
23 }
```

[]

	Test	Expected	Got	
✓	int arr[] = {1,2,3,3}; printf("%d", balancedSum(4, arr))	2	2	✓

Passed all tests! ✓

//

Question 2

Correct

Given an array of n integers, rearrange them so that the sum of the absolute differences of all adjacent elements is minimized. Then, compute the sum of those absolute differences.

Example

n = 5

arr = [1, 3, 3, 2, 4]

If the list is rearranged as arr' = [1, 2, 3, 3, 4], the absolute differences are $|1 - 2| = 1$, $|2 - 3| = 1$, $|3 - 3| = 0$, $|3 - 4| = 1$. The sum of those differences is $1 + 1 + 0 + 1 = 3$.

Function Description

Complete the function minDiff in the editor below.

minDiff has the following parameter:

arr: an integer array

Returns:

int: the sum of the absolute differences of adjacent elements

Constraints

$2 \leq n \leq 10^5$

$0 \leq arr[i] \leq 10^9$, where $0 \leq i < n$

Input Format For Custom Testing

The first line of input contains an integer, n, the size of arr.

Each of the following n lines contains an integer that describes arr[i] (where $0 \leq i < n$) .

Sample Case 0

Sample Input For Custom Testing

STDIN Function

5 → arr[] size n = 5

```
5 → arr[] = [5, 1, 3, 7, 3]
1
3
7
3
```

Sample Output

6

Explanation

$n = 5$

$\text{arr} = [5, 1, 3, 7, 3]$

If arr is rearranged as $\text{arr}' = [1, 3, 3, 5, 7]$, the differences are minimized.

The final answer is $|1 - 3| + |3 - 3| + |3 - 5| + |5 - 7| = 6$.

Sample Case 1

Sample Input For Custom Testing

STDIN Function

----- -----

```
2 → arr[] size n = 2
3 → arr[] = [3, 2]
2
```

Sample Output

1

Explanation

$n = 2$

$\text{arr} = [3, 2]$

There is no need to rearrange because there are only two elements. The final answer is $|3 - 2| = 1$.

Answer: (penalty regime: 0 %)

Reset answer

1 √ /*

```
2 * Complete the 'minDiff' function below.  
3 *  
4 * The function is expected to return an INTEGER.  
5 * The function accepts INTEGER_ARRAY arr as parameter.  
6 */  
7 int compare(const void*a,const void*b){  
8     return (*(int*)a-*(int*)b);  
9 }  
10 int minDiff(int arr_count, int* arr)  
11 {  
12  
13  
14     qsort(arr,arr_count,sizeof(int), compare);  
15     int sum=0;  
16     for(int i=1;i<arr_count;i++)  
17     {  
18         sum+=abs(arr[i]-arr[i-1]);  
19     }  
20  
21     return sum;  
22 }  
23 }  
24 }
```

	Test	Expected	Got	
✓	int arr[] = {5, 1, 3, 7, 3}; printf("%d", minDiff(5, arr))	6	6	✓

Passed all tests! ✓

Question 3

Correct

Calculate the sum of an array of integers.

Example

numbers = [3, 13, 4, 11, 9]

The sum is $3 + 13 + 4 + 11 + 9 = 40$.

Function Description

Complete the function arraySum in the editor below.

arraySum has the following parameter(s):

int numbers[n]: an array of integers

Returns

int: integer sum of the numbers array

Constraints

$1 \leq n \leq 10^4$

$1 \leq \text{numbers}[i] \leq 10^4$

Input Format for Custom Testing

Input from stdin will be processed as follows and passed to the function.

The first line contains an integer n, the size of the array numbers.

Each of the next n lines contains an integer numbers[i] where $0 \leq i < n$.

Sample Case 0

Sample Input 0

STDIN Function

----- -----

5 → numbers[] size n = 5

1 → numbers = [1, 2, 3, 4, 5]

2

3

4

5

Sample Output 0

15

Explanation 0

$$1 + 2 + 3 + 4 + 5 = 15.$$

Sample Case 1

Sample Input 1

STDIN Function

```
2 → numbers[] size n = 2
12 → numbers = [12, 12]
12
```

Sample Output 1

24

Explanation 1

$$12 + 12 = 24.$$

Answer: (penalty regime: 0 %)

Reset answer

```
1 /*
2  * Complete the 'arraySum' function below.
3  *
4  * The function is expected to return an INTEGER.
5  * The function accepts INTEGER_ARRAY numbers as parameter.
6 */
7
8 int arraySum(int numbers_count, int *numbers)
9 {
10     int sum=0;
11     for(int i=0;i<numbers_count;i++)
12     {
13         sum+=numbers[i];
14     }
15     return sum;
16 }
17
```

	Test	Expected	Got
✓	int arr[] = {1,2,3,4,5}; printf("%d", arraySum(5, arr))	15	15 ✓

Passed all tests! ✓

GE23131-Programming Using C-2025

Week-14-01-Practice Session

Attempts allowed: 3

This quiz has been configured so that students may only attempt it using the Safe Exam Browser.

Time limit: 2 hours

Grading method: Highest grade

Your attempts

Attempt 1

Status	Finished
Started	Tuesday, 25 November 2025, 9:53 PM
Completed	Tuesday, 25 November 2025, 10:17 PM
Duration	23 mins 53 secs

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Status	Finished
Started	Tuesday, 9 December 2025, 8:08 PM
Completed	Tuesday, 9 December 2025, 8:28 PM
Duration	19 mins 17 secs

Question 1

Correct

An automated cutting machine is used to cut rods into segments. The cutting machine can only hold a rod of *minLength* or more, and it can only make one cut at a time. Given the array *lengths[]* representing the desired lengths of each segment, determine if it is possible to make the necessary cuts using this machine. The rod is marked into lengths already, in the order given.

Example

n = 3

lengths = [4, 3, 2]

minLength = 7

The rod is initially $\text{sum}(\text{lengths}) = 4 + 3 + 2 = 9$ units long. First cut off the segment of length $4 + 3 = 7$ leaving a rod $9 - 7 = 2$. Then check that the length 7 rod can be cut into segments of lengths 4 and 3. Since 7 is greater than or equal to *minLength* = 7, the final cut can be made. Return "Possible".

Example

n = 3

lengths = [4, 2, 3]

minLength = 7

The rod is initially $\text{sum}(\text{lengths}) = 4 + 2 + 3 = 9$ units long. In this case, the initial cut can be of length 4 or $4 + 2 = 6$. Regardless of the length of the first cut, the remaining piece will be shorter than *minLength*. Because $n - 1 = 2$ cuts cannot be made, the answer is "Impossible".

Function Description

Complete the function *cutThemAll* in the editor below.

cutThemAll has the following parameter(s):

int lengths[n]: the lengths of the segments, in order

int minLength: the minimum length the machine can accept

Returns

string: "Possible" if all $n - 1$ cuts can be made. Otherwise, return the string "Impossible".

Constraints

- $2 \leq n \leq 10^5$
- $1 \leq t \leq 10^9$
- $1 \leq lengths[i] \leq 10^9$
- The sum of the elements of *lengths* equals the uncut rod length.

Input Format For Custom Testing

The first line contains an integer, *n*, the number of elements in *lengths*.

Each line *i* of the *n* subsequent lines (where $0 \leq i < n$) contains an integer, *lengths[i]*.

The next line contains an integer, *minLength*, the minimum length accepted by the machine.

Sample Case 0

Sample Input For Custom Testing

STDIN Function

```
4 → lengths[] size n = 4
3 → lengths[] = [3, 5, 4, 3]
5
4
3
9 → minLength= 9
```

Sample Output

Possible

Explanation

The uncut rod is $3 + 5 + 4 + 3 = 15$ units long. Cut the rod into lengths of $3 + 5 + 4 = 12$ and 3. Then cut the 12 unit piece into lengths 3 and $5 + 4 = 9$. The remaining segment is $5 + 4 = 9$ units and that is long enough to make the final cut.

Sample Case 1

Sample Input For Custom Testing

STDIN Function

```
3 → lengths[] size n = 3
5 → lengths[] = [5, 6, 2]
6
2
12 → minLength= 12
```

Sample Output

Impossible

Explanation

The uncut rod is $5 + 6 + 2 = 13$ units long. After making either cut, the rod will be too short to make the second cut.

Answer: (penalty regime: 0 %)

Reset answer

```

1 #include<stdio.h>
2 #include<stdlib.h>
3 char* cutThemAll(int lengths_count, long *lengths, long minLength) {
4     long total =0;
5     for(int i=0;i<lengths_count;i++){
6         total+=lengths[i];
7     }
8     for(int i=0;i<lengths_count;i++){
9         long remainder=total-lengths[i];
10        if(remainder>=minLength){
11            char*result=(char*)malloc(9);
12            sprintf(result,"Possible");
13            return result;
14        }
15    }
16    char*result=(char*)malloc(11);
17    sprintf(result,"Impossible");
18    return result;
19 }
20

```



	Test	Expected	Got	
✓	long lengths[] = {3, 5, 4, 3}; printf("%s", cutThemAll(4, lengths, 9))	Possible	Possible	✓
✓	long lengths[] = {5, 6, 2}; printf("%s", cutThemAll(3, lengths, 12))	Impossible	Impossible	✓

Passed all tests! ✓

Question 2

Correct

Given an array of integers, reverse the given array in place using an index and loop rather than a built-in function.

Example

arr = [1, 3, 2, 4, 5]

Return the array *[5, 4, 2, 3, 1]* which is the reverse of the input array.

Function Description

Complete the function *reverseArray* in the editor below.

reverseArray has the following parameter(s):

int arr[n]: an array of integers

Return

int[n]: the array in reverse order

Constraints

$1 \leq n \leq 100$

$0 < arr[i] \leq 100$

Input Format For Custom Testing

The first line contains an integer, n , the number of elements in *arr*.

Each line i of the n subsequent lines (where $0 \leq i < n$) contains an integer, *arr[i]*.

Sample Case 0**Sample Input For Custom Testing**

5
1
3
2
4
5

Sample Output

5
4
2
3
1

Explanation

The input array is [1, 3, 2, 4, 5], so the reverse of the input array is [5, 4, 2, 3, 1].

Sample Case 1

Sample Input For Custom Testing

4
17
10
21
45

Sample Output

45
21
10
17

Explanation

The input array is [17, 10, 21, 45], so the reverse of the input array is [45, 21, 10, 17].

Answer: (penalty regime: 0 %)

Reset answer

```
1 #include<stdlib.h>
2 int* reverseArray(int arr_count, int *arr, int *result_count){
3     *result_count=arr_count;
4     int*reversed_arr=(int*)malloc(arr_count*sizeof(int));
5     for(int i=0;i<arr_count;i++){
6         reversed_arr[i]=arr[arr_count-1-i];
7     }
8     return reversed_arr;
9 }
```

	Test	Expected	Got	
✓	int arr[] = {1, 3, 2, 4, 5}; int result_count; int* result = reverseArray(5, arr, &result_count); for (int i = 0; i < result_count; i++) printf("%d\n", *(result + i));	5 4 2 3 1	5 4 2 3 1	✓

Passed all tests! 

//