

Course-1

Introduction to JAVA

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3. Lec3:-How is data stored
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1.Lec-1:-Flowcharts [8-Videos 11-Problems]

Lecture:

1. How To Approach Problems
2. What is Flowchart?
3. Add Two Numbers
4. Average of three numbers
5. Decision Making Algorithms
6. Largest Of 3 Numbers
7. Check Number
8. Valid Triangle
9. Print Numbers From 1 To N
10. Find Product
11. Print Even Numbers
12. Check Number is Prime?
13. Largest of N numbers

Assignment

1. Check triangle
2. Sum of evens
3. Find GCD
4. All prime
5. All fibonacci number
6. Member of Fibonacci

2.Lec-2:-Getting Started with java [10-Videos 10-Problems]

Lecture

1. Get set, go with Programming
2. Java Platform Independence
3. Installing JDK and Eclipse
4. Java Installation Guide
5. Hello World
6. More on Hello World

7. Variables and Data Types
8. More On Variables and Data Types
9. Ground Rules while creating variables
10. Size of long
11. Datatype
12. Boolean Variable
13. Valid Variable Name
14. Uninitialized Local Variable
15. Arithmetic operators and precedence
16. Taking Input
17. Predict the output
18. Predict The String output
19. Multiple inputs
20. Integer and String
21. Average Marks

Lecture 2 : Getting Started with Java
Deadline Jul 23, 2022, 11:59 PM

Size of long

Primitive data type "long" is having size _____ byte(s) in Java Programming.

Answer

8 ✓

Correct Answer

PREVIOUS NEXT SUBMIT

Lecture 2 : Getting Started with Java
Deadline: Jul 23, 2022, 11:59 PM

Datatype

Send Feedback

Which of the following data type stores longest decimal number?

Options (Attempt left: 1/2)

This problem has only one correct answer.

- long
- float
- double ✓
- short

Correct Answer:

Solution Description

Out of all given options, only float and double can hold decimal numbers. Size of the float is 4 bytes and double is 8 bytes (in most of the compilers, as the size of data types is compiler specific). So double can store bigger decimal numbers.

PREVIOUS NEXT SUBMIT

23°C Light rain 11:18 ENG 09-08-2022

Lecture 2 : Getting Started with Java
Deadline: Jul 23, 2022, 11:59 PM

Boolean Variable

Send Feedback

Which of these values can be assigned to a boolean variable in Java?

Options (Attempt left: 0/2)

This problem has only one correct answer.

- a. 0 or 1
- b. Any integer value.
- c. true or false ✓
- d. Both options a and c

Correct Answer:

Solution Description

Boolean variable in java can only hold either true or false value.

PREVIOUS NEXT SUBMIT

23°C Light rain 11:18 ENG 09-08-2022

Lecture 2 : Getting Started with Java
Deadline Jul 23, 2022, 11:59 PM

Valid Variable Name

Which of these is a valid variable name ?

var1 ✓
 var@1
 2_var
 _var

Solution Description

In java, you cannot start your variable name with numbers and also they cannot contain any other special character except underscore (_) and dollar (\$).

PREVIOUS NEXT SUBMIT

Lecture 2 : Getting Started with Java
Deadline Jul 23, 2022, 11:59 PM

Uninitialized Local Variable

Compiler never assigns a default value to an uninitialized local variable in java Programming. Whether this statement is true or false ?

True ✓
 False

Solution Description

In java, its compulsory to initialise any local variable before using it because compiler don't assign any default/garbage value to variables.

PREVIOUS NEXT SUBMIT

Lecture 2 : Getting Started with Java

Deadline Jul 23, 2022, 11:59 PM

Taking Input • 11:40
Predict the output • 20.0/20
Predict The String output • 20.0/20
Multiple inputs • 20.0/20
Integer and String • 20.0/20
Average Marks • 80.0/80
Lecture Feedback

Problem Result

Predict the output

Send Feedback

What is the output of the following code if the input is : 5 10 ?

```
Scanner s = new Scanner(System.in);
int a = s.nextInt();
int b = s.nextInt();
System.out.println(a+b);
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

5
 10
 15 ✓
 Error

Correct Answer

Solution Description

"`s.nextInt()`" scans and returns the next token as int. A token is part of entered line that is separated from other tokens by space, tab or newline. So when input line is : "5 10", then `s.nextInt()` returns the first token i.e. "5" as int and `s.nextInt()` again returns the next token i.e. "10" as int.

Lecture 2 : Getting Started with Java

Deadline Jul 23, 2022, 11:59 PM

Taking Input • 11:40
Predict the output • 20.0/20
Predict The String output • 20.0/20
Multiple inputs • 20.0/20
Integer and String • 20.0/20
Average Marks • 80.0/80
Lecture Feedback

Problem Result

Predict The String output

Send Feedback

What is the output of the following code if the input string is "Coding Ninjas"?

```
Scanner s = new Scanner(System.in);
String str;
str = s.next();
System.out.print(str);
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Coding Ninjas
 Coding ✓
 Ninjas
 The above code fragment does not compile

Correct Answer

Solution Description

"`s.next()`" returns the next token as String. A token is part of entered line that is separated from other tokens by space, tab or newline. So when input line is - "Coding Ninjas" then `s.next()` returns the first token i.e. "Coding".

Lecture 2 : Getting Started with Java

Deadline Jul 23, 2022, 11:59 PM

Taking Input • 11:40

Predict the output • 20.0/20

Predict The String output • 20.0/20

Multiple inputs • 20.0/20

Integer and String • 20.0/20

Average Marks • 80.0/80

Lecture Feedback

Problem Result

Multiple inputs

Send Feedback

What is the output of the following code if input is :
10 abc def

```
Scanner s = new Scanner(System.in);
int a = s.nextInt();
String str = s.next();
System.out.print(a);
System.out.println(str);
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Attempts left: 1/2

10 abc def

10abc ✓

10abcdef

10 ehr

Correct Answer

Solution Description

"a.nextInt()" scans and returns the next token as int. A token is part of entered line that is separated from other tokens by space, tab or newline. So when input line is - "10 abc def" then a.nextInt() returns the first token as int i.e. "10" and s.next() returns the next token "abc". While printing, in first statement a is printed and then str. There is no space or newline between both print. Hence output is : 10abc.

PREVIOUS NEXT SUBMIT

Lecture 2 : Getting Started with Java

Deadline Jul 23, 2022, 11:59 PM

Taking Input • 11:40

Predict the output • 20.0/20

Predict The String output • 20.0/20

Multiple inputs • 20.0/20

Integer and String • 20.0/20

Average Marks • 80.0/80

Lecture Feedback

Problem Result

Integer and String

Send Feedback

What is the output of the following code if input is : abc def 10

```
Scanner s = new Scanner(System.in);
String str = s.next();
int a = s.nextInt();
System.out.print(str + " " + a);
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Attempts left: 0/2

abc def 10

abc 10

InputMismatchException ✓

abc InputMismatchException

Correct Answer

Solution Description

"a.next()" scans and returns the next token as String. A token is part of entered line that is separated from other tokens by space, tab or newline. So when input line is - "abc def 10" then s.next() returns the first token as String i.e. "abc" and s.nextInt() tries to convert the next token i.e. "def" into an int, which gives InputMismatchException.

PREVIOUS NEXT SUBMIT

A screenshot of a Java programming environment. The code editor contains the following Java code:

```
1+ import java.util.Scanner;
2+ public class Solution {
3+
4+
5+    public static void main(String[] args) {
6+
7+        /* Your class should be named Solution.
8+         * Read input as specified in the question.
9+         * Print output as specified in the question.
10+        */
11+       Scanner sc=new Scanner(System.in);
12+       String name=sc.nextLine();
13+       char ch=name.charAt(0);
14+
15+       int m1=sc.nextInt();
16+       int m2=sc.nextInt();
17+       int m3=sc.nextInt();
18+
19+       int avg=(m1+m2+m3)/3;
20+       System.out.println(ch+"\n"+avg);
21+
22+
23+
24+
25+    }
}
```

The interface includes sections for "Average Marks" and "Input format:", and a "SUBMIT SOLUTION" button.

3.Lec-3:-How is data Stored [4-Videos 6-Problems]

Lecture

1. Binary Number System
2. How negative numbers are stored?
3. Short data type
4. Byte
5. How characters are stored
6. Typecasting
7. Check for Error
8. Figure out the Output
9. Figure out the Output
10. Automatic type conversion
11. Java Intro Notes

The screenshot shows a browser window with the URL <https://classroom.codingninjas.com/app/classroom/me/19552/content/388784/offering/5517891/problem/941>. The page title is "Short data type". A message at the top says "You have max 2 attempts to score in this question." Below it, "Options" are listed: -2,147,483,648 (incorrect), -32,768 (correct), -32,767 (incorrect), and -127 (incorrect). A red checkmark is next to the correct answer. A "Correct Answer" link is present. A "Solution Description" section follows, containing the text "####Short is of 16 bits. So the smallest value short can store is : -2^15.". A large red checkmark is drawn over the correct answer option.

The screenshot shows a browser window with the URL <https://classroom.codingninjas.com/app/classroom/me/19552/content/388784/offering/5517891/problem/942>. The page title is "Byte". A message at the top says "You have max 2 attempts to score in this question." Below it, "Options" are listed: -128 to 255 (incorrect), -128 to 256 (incorrect), -128 to 127 (correct), and -127 to 128 (incorrect). A red checkmark is next to the correct answer. A "Correct Answer" link is present. A "Solution Description" section follows, containing the text "####Range of byte(8 bits) is : -2^7 to 2^7 - 1.". A large red checkmark is drawn over the correct answer option.

Lecture 3 : How is Data Stored?
Deadline Jul 23, 2022, 11:59 PM

Typecasting 10:19
Check for Error 20.0/20
Figure out the Output 20.0/20
Figure out the Output 20.0/20
Automatic type conversion 20.0/20
java Intro Notes 20.0/20
Lecture Feedback

Problem Result

Check for Error
Send Feedback

Will following statement give an error ?
float f = 1.4;

You have max 2 attempts to score in this question.
Options
This problem has only one correct answer
Attempt left: 1/2

Yes ✓
No
Correct Answer

Solution Description
System treats all decimal numbers as double by default. So 1.4 is stored as double(which is of 8 bytes). When we will try put a double into a float(which is of 4 bytes), it will give you error.

PREVIOUS NEXT SUBMIT

Lecture 3 : How is Data Stored?
Deadline Jul 23, 2022, 11:59 PM

Typecasting 10:19
Check for Error 20.0/20
Figure out the Output 20.0/20
Figure out the Output 20.0/20
Automatic type conversion 20.0/20
java Intro Notes 20.0/20
Lecture Feedback

Figure out the Output
Send Feedback

What will be the output of the following statement ?
System.out.println('a' + 1);

Answer
98 ✓
Correct Answer

Solution Description
When you add a character and an int, it will add the ASCII value of char 'a'(i.e 97) and int 1. So ans will be 98.

PREVIOUS NEXT SUBMIT

Lecture 3 : How is Data Stored?
Deadline
Jul 23, 2022, 11:59 PM

Typecasting 10:19
Check for Error 20.0/20
Figure out the Output 20.0/20
Figure out the Output 20.0/20
Automatic type conversion 20.0/20
java Intro Notes 20.0/20
Lecture Feedback

Figure out the Output
Send Feedback

What will be the output?

```
int i = 'c';
System.out.println();
```

Answer
99 ✓
Correct Answer.

Solution Description
When we put char 'c' into an int, its ASCII value will be put in the int i.e. 99.

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classroom.codingninjas.com/app/classroom/me/19552/content/388784/offering/5517894/problem/950

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ASK/VIEW DOUBT

Automatic type conversion
Send Feedback

Automatic type conversion in Java takes place when:

Options
This problem has only one correct answer

Attempts left: 1/2

1. Two type are compatible and size of destination type is shorter than source type.

2. Two type are compatible and size of destination type is larger than source type. ✓

3. Both 1 and 2

4. None of the above

Correct Answer

4.Lec-4:-Conditions & Loops [10-Videos 30-Problems]

Lecture

1. Relational & Logical Operators
2. Error in code
3. Find the output
4. Predict the output
5. Predict the output
6. Basics of Conditionals
7. Find output
8. Find output
9. Even Odd Question
10. Find the output
11. Figure out the output
12. What will be the output
13. Conditionals and Operators
14. Positive Negative
15. Find the output
16. Find the output
17. Nested if else and If-else if-else
18. Find Character Cas
19. Loop
20. Find the output
21. Number of hello
22. Number of hello 2
23. Sum of N Numbers
24. Same output
25. Fahrenheit to Celsius Table
26. Check Primality
27. Primality Check
28. Return Keyword
29. Find the output
30. Scope of Variables
31. Check the error
32. Check the error

33. Check the error
34. Check the error
35. What is the output

Lecture 4 : Conditionals and Loops
Deadline: Jul 23, 2022, 11:59 PM

Score: 840.00/960

Error in code

Send Feedback

What is the error in this code?

```
byte b = 50;
b = b * 50;
```

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer

b can not contain value 2500; limited by its range.

*/ operator has converted b * 50 into int. which can not be converted to byte.

b can not contain value 50.

No error in this code.

The solution to this problem has been viewed

Solution Description

In 2nd statement, b is multiplied with 50 where b is byte variable and 50 is an integer. So after the multiplication, result comes as an integer value which is 2500. Now we are trying to assign this Integer to a byte variable, which will cause the error.

Lecture 4 : Conditionals and Loops
Deadline: Jul 23, 2022, 11:59 PM

10.14

Find the output

Send Feedback

```
public class Solution{
    public static void main(String [] args) {
        double a = 6 / 4;
        int b = 6 / 4;
        double c = a + b;
        System.out.println(c);
    }
}
```

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer

3.0

1.5

2.0 ✓

2.5

Correct Answer

Solution Description

When 6 / 4 is performed, both the operands of / are integer. Hence answer will be an int i.e. 1. When we store it in a (which is double), value of a will be 1.0 and value of b will be 1. Thus a + b will be 2.0.

Lecture 4 : Conditionals and Loops

Deadline Jul 23, 2022, 11:59 PM

Find the output 30.0/30

Predict the output 30.0/30

Predict the output 30.0/30

Basics of Conditionals 06:50

Find output 30.0/30

Find output 0/30

Even Odd Question 10:45

Predict the output

Send Feedback

```
public class Solution{ public static void main(String [] args){ double a = 55.5; int b = 55; a = a % 10; b = b % 10; System.out.println(a + " " + b); }}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Attempts left: 1/2

5.5 ✓

5.5 5

6.5

None of these

Correct Answer

Solution Description

operator gives remainder. So a % 10 will give us 5.5 and b % 10 will give us 5. Hence output is: 5.5

PREVIOUS NEXT SUBMIT

Type here to search

Lecture 4 : Conditionals and Loops

Deadline Jul 23, 2022, 11:59 PM

Relational & Logical Operators 10:34

Error in code 0/30

Find the output 30.0/30

Predict the output 30.0/30

Predict the output 30.0/30

Basics of Conditionals 06:50

Find output 30.0/30

Find output 0/30

Predict the output

Send Feedback

```
public class Solution { public static void main(String [] args) { int var1 = 5; int var2 = 6; System.out.print(var1 > var2); }}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Attempts left: 1/2

false ✓

true

0

1

Correct Answer

Solution Description

> is a relational operator. So it will give the result as true or false only. var1 is not greater than var2. hence result is false.

PREVIOUS NEXT SUBMIT

Type here to search

Lecture 4 : Conditionals and Loops

Deadline Jul 23, 2022, 11:59 PM

Basics of Conditionals • 08:50

Find output • 30.0/30

Find output • 0/30

Even Odd Question • 10:45

Find the output • 30.0/30

Figure out the output • 30.0/30

What will be the output • 60.0/60

Waiting for pwebergame.com...

Problem Result

Find output

Send Feedback

Find the output of the following code:

```
public static void main(String args[])
{
    int a=10,b=15;
    if(a>b)
    {
        System.out.print("a ");
    }
    else
    {
        System.out.print("b ");
    }
    System.out.print("is greater");
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Atempts left: 1/2

a

b

a is greater

b is greater ✓

Correct Answer

Solution Description

"is greater" is written outside if-else so it would always print

PREVIOUS NEXT SUBMIT

Lecture 4 : Conditionals and Loops

Deadline Jul 23, 2022, 11:59 PM

Basics of Conditionals • 08:50

Find output • 30.0/30

Find output • 0/30

Even Odd Question • 10:45

Find the output • 30.0/30

Figure out the output • 30.0/30

What will be the output • 60.0/60

Conditionals and Operators • 05:50

Waiting for pwebergame.com...

Problem Result

Find output

Send Feedback

Find the output of the following code:

```
int a=50;
if(a>10)
{
    System.out.print("Coding");
}
else(a>20)
{
    System.out.print("Ninjas");
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Atempts left: 0/2

Coding

Ninjas

CodingNinjas ✓

Compile time error ✓

The solution to this problem has been viewed

Solution Description

else (a>20) is wrong syntax.

We cannot use condition after else.

PREVIOUS NEXT SUBMIT

Screenshot of a Java course interface showing a problem titled "Find the output".

Lecture 4 : Conditionals and Loops
Deadline: Jul 23, 2022, 11:59 PM

Find the output

```
public static void main(String args[])
{
    int x = 5;
    if (x < 6)
        System.out.print("Hello_");
    if(x == 5){
        System.out.print("Hi_");
    }
    else{
        System.out.print("Hey_");
    }
}
```

Options
Attempts left: 1/2

- Hello
- Hi
- Hello Hi ✓
- Hello Hey

Correct Answer

Solution Description

As x is equal to 5, it enters in first if condition and prints "Hello_". After that, second if condition will be checked and that is true again, so it will next print "Hi_". Else part will be skipped.

Screenshot of a Java course interface showing a problem titled "Figure out the output".

Lecture 4 : Conditionals and Loops
Deadline: Jul 23, 2022, 11:59 PM

Figure out the output

```
public static void main(String[] args) {
    int x = 15;
    if(x <= 15){
        System.out.print("Inside if_");
    }else if(x == 15){
        System.out.print("Inside else if_");
    }
    System.out.println(x);
}
```

Options
Attempts left: 0/2

- Inside if
- 15
- Inside if 15 ✓
- Inside if inside else if 15

Correct Answer

Solution Description

####First if condition will be checked first, and it evaluates to true. Hence, the statement inside if will be executed, so it will print "Inside if".
####After that, else if part will be skipped. Because in if-else statements, once a condition is satisfied remaining all the conditions are skipped without evaluation.
####After exit from if-else statement, the last print statement will be executed. Hence it will print value of x i.e. 15.

Screenshot of a web-based Java course interface showing a problem titled "What will be the output".

Lecture 4 : Conditionals and Loops
Deadline: Jul 23, 2022, 11:59 PM

Problem

```
public static void main(String args[])
{
    int var1 = 5;
    int var2 = 6;
    if (var2 == 1) == var1)
        System.out.print(var2);
    else
        System.out.print(var2 + 1);
}
```

Options

- 7
- 1
- 2
- 6

Solution Description

Inside if condition, we are actually assigning 1 to var2 and then comparing it with var1. So, after assignment, var2 becomes equal to 1 and then we are comparing it with var1 whose value is 5. Both are not equal, hence else part will be executed.
So the output will be 2, as var2 was updated to value 1 in the if condition.

Screenshot of a web-based Java course interface showing a problem titled "Positive Negative".

Lecture 4 : Conditionals and Loops
Deadline: Jul 23, 2022, 11:59 PM

Problem

Let a and b are the two integers. Which option can be used to check out of two numbers one is positive and the other is negative

Options

- $a < 0 \& b > 0$
- $a > 0 \& b < 0$
- $a < 0 \& b < 0$
- $a \neq b \& 0$

Solution Description

Given two integers a and b, the product of two integers is negative means either of a or b is negative.
I.e. If we multiply a*b and the result is less than 0 , it means either a or b is negative.

Screenshot of a Java course problem page on Coding Ninjas.

Lecture 4 : Conditionals and Loops
Deadline: Jul 23, 2022, 11:59 PM

Topics: Positive Negative, Find the output, Find the output, Nested if else and If-else if-else, Find Character Case, Loop, Find the output.

Find the output

Send Feedback

Find the output of the following code:

```
public static void main (String[] args) {
    int a=5;
    int b=Integer.MIN_VALUE;
    if(a==b)
    {
        System.out.println("Hello");
    }
    else
    {
        System.out.println("Hi");
    }
}
```

Options (Attempt left: 1/2)

- Hello
- Hi
- Compile time error
- Run time error ✓

Correct Answer

Solution Description

The syntax of the code is correct but an execution dividing a number by zero gives a run-time error.

PREVIOUS NEXT SUBMIT

Screenshot of a Java course problem page on Coding Ninjas.

Lecture 4 : Conditionals and Loops
Deadline: Jul 23, 2022, 11:59 PM

Topics: Find the output, Find the output, Nested if else and If-else if-else, Find Character Case, Loop, Find the output, Number of hello.

Find the output

Send Feedback

Find the output of the code:

```
public static void main (String[] args) {
    int a=50,b=20;
    if(a>b)
    {
        if(a>100)
            System.out.println("Ace");
        if(b<100)
            b=50;
    }
    else if(a==b)
    {
        System.out.println("King");
    }
    else
    {
        System.out.println("Queen");
    }
}
```

Options (Attempt left: 1/2)

- No output ✓
- King
- Queen
- Ace

Correct Answer

Solution Description

(a>b) is true, So we go inside the if.
(a>100) is false
(b<100) is true, so it is executed and b is updated to 50.

But no print statement is executed hence no output.

PREVIOUS NEXT SUBMIT

Lecture 4 : Conditionals and Loops

Deadline Jul 23, 2022, 11:59 PM

Find Character Case

Send Feedback

Write a program that takes a character as input and prints either 1, 0 or -1 according to the following rules.

1. if the character is an uppercase alphabet (A - Z)
0. if the character is a lowercase alphabet (a - z)
-1. if the character is not an alphabet

Input format :

Single Character

Output format :

1 or 0 or -1

Constraints :

13579

PREVIOUS NEXT CUSTOM INPUT SUBMIT SOLUTION

Java Course-1 - Google Docs

Lecture 4 : Conditionals and Loops

Deadline Jul 23, 2022, 11:59 PM

Find the output

Send Feedback

What will be the output of the following code?

```
public static void main (String[] args) {  
    int i=0;  
    while(i<10){  
        i+=1;  
        System.out.println();  
        i+=1;  
    }  
}
```

Answer

13579

Correct Answer

PREVIOUS NEXT SUBMIT

Java Course-1 - Google Docs

Lecture 4 : Conditionals and Loops

Deadline: Jul 23, 2022, 11:59 PM

Find the output • 30.0/30

Number of hello • 0/30

Number of hello 2 • 30.0/30

Sum of N Numbers • 06:46

Some output • 30.0/30

Fahrenheit to Celsius Table • 120.0/120

Check Primality • 06:17

Number of hello

The number of Hello printed on the screen for the following code will be:

```
public static void main (String[] args) {
    int x=5;
    int y=5;
    while(x<5)==y)
    {
        System.out.println("Hello");
        x++;
        y++;
    }
}
```

Options

- Infinite
- Zero
- One ✓
- Error

The solution to this problem has been viewed.

Solution Description

The loop is executed only once when $y=5$.
The condition is false when $y=6$.

Lecture 4 : Conditionals and Loops

Deadline: Jul 23, 2022, 11:59 PM

Number of hello • 0/30

Number of hello 2 • 30.0/30

Sum of N Numbers • 06:46

Some output • 30.0/30

Fahrenheit to Celsius Table • 120.0/120

Check Primality • 06:17

Primality Check • 30.0/30

Number of hello 2

The number of Hello printed on the screen for the following code will be:

```
public static void main (String[] args) {
    int x=5;
    int y=5;
    while(x==y)
    {
        System.out.println("Hello");
        x++;
        y++;
    }
}
```

Options

- 1
- Infinite ✓
- 5
- 0

Correct Answer

Solution Description

x and y are equal every time . Hence infinite loop.

Lecture 4 : Conditionals and Loops

Deadline: Jul 23, 2022, 11:59 PM

Sum of N Numbers • 06:46

Same output • 30.0/30

Fahrenheit to Celsius Table • 120.0/120

Check Primality • 06:17

Primality Check • 30.0/30

Return Keyword • 04:57

Find the output • 30.0/30

Same output

Send Feedback

Which of the following codes gives same output:

1.

```
int i=1;
while(i<5)
{
    System.out.print(2*i);
    i+=1;
}
```

2.

```
int i=2;
while(i<10)
{
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Attempt left: 1/2

1. 2 4
2. 1 2 3 4
3. 1 2 ✓
4. 1 2 4

Correct Answer

Solution Description

Output of the codes are:
Code 1: 2468
Code 2: 2468
Code 3: 248
Code 4: 02468

Lecture 4 : Conditionals and Loops

Deadline: Jul 23, 2022, 11:59 PM

Same output • 30.0/30

Fahrenheit to Celsius Table • 120.0/120

Check Primality • 06:17

Primality Check • 30.0/30

Return Keyword • 04:57

Find the output • 30.0/30

Scope of Variables • 10:03

Fahrenheit to Celsius Table

Send Feedback

Given three values - Start Fahrenheit Value (S), End Fahrenheit value (E) and Step Size (W), you need to convert all Fahrenheit values from Start to End of the gap of W, into their corresponding Celsius values and print the table.

Input Format:

3 integers - S, E and W respectively

Output Format:

Fahrenheit to Celsius conversion table. One line for every Fahrenheit and corresponding Celsius value. The Fahrenheit value and its corresponding Celsius value should be separate by single space.

```
1. Import java.util.Scanner;
2. public class Solution {
3.
4.
5.     public static void main(String[] args) {
6.
7.         /* Your class should be named Solution,
8.          * Read input as specified in the question,
9.          * Print output as specified in the question.
10.         */
11.        Scanner s=new Scanner(System.in);
12.        int S=s.nextInt();
13.        int E=s.nextInt();
14.        int W=s.nextInt();
15.
16.        while(S<=E){
17.            int cel=((S-32)*5)/9;
18.            System.out.println(S+" "+cel);
19.            S=S+W;
20.        }
21.    }
22.
23.
24.
25.
26. }
```

CUSTOM INPUT

SUBMIT SOLUTION

Lecture 4 : Conditionals and Loops

Deadline: Jul 23, 2022, 11:59 PM

Can this code be used to check primality of a positive integer?

```
public static void main (String[] args) {
    Scanner s=new Scanner (System.in);
    int n=s.nextInt();
    boolean isprime=true;
    if(n%2==0)
        isprime=false;
    int i=3;
    while(isprime&&i<n)
    {
        isprime=(n%i==0);
        i+=2;
    }
    if(isprime)
    {
        System.out.println("Prime");
    }
    else
    {
        System.out.println("Composite");
    }
}
```

Options

This problem has only one correct answer

Yes

No ✓

Correct Answer

Solution Description

The code fails for n=2. Otherwise the code runs fine for every other positive integer.

Lecture 4 : Conditionals and Loops

Deadline: Jul 23, 2022, 11:59 PM

Find the output

Send Feedback

Find the output for the following code:

```
int i=10;
while(i>1>0)
{
    System.out.print(i);
    if(i%5==0)
        return;
}
```

Options

This problem has only one correct answer

987654321

Error

99705 ✓

99706

Correct Answer

Solution Description

The code executes for i=9,8,7,6,5 and prints 99705. At i=6 the if statement is executed and the code terminates.

A screenshot of a web browser showing a Java course assignment. The title is "Lecture 4 : Conditionals and Loops". The deadline is "Jul 23, 2022, 11:59 PM". On the left, there's a list of tasks: "Scope of Variables" (10:03), "Check the error" (30.0/30), "Check the error" (30.0/30), "Check the error" (30.0/30), "Check the error" (30.0/30), and "What is the output" (30.0/30). In the center, a "Check the error" section shows a code snippet:

```
public class Main {  
    public static void main(String[] args) {  
        int a = 10;  
        if(a > 5) {  
            int b = 10;  
        }  
        System.out.println(b);  
    }  
}
```

The right panel displays options for the question: "You have max 2 attempts to score in this question." It says "This problem has only one correct answer". There are two radio buttons: "Yes" (checked) and "No". A "Correct Answer" button is also present.

A screenshot of the same Java course assignment page. The "Score" is now 600.00/600, indicating the assignment is completed. The rest of the interface is identical to the first screenshot, showing the task list, central code editor, and right-side options panel.

The screenshot shows a Java course assignment page on Coding Ninjas. The assignment is titled "Lecture 4 : Conditionals and Loops" with a deadline of "Jul 23, 2022, 11:59 PM". The assignment score is 100.0% and the total salary is 120.0/120. There are three tasks listed: "Check the error" (30.0/30), "Check the error" (30.0/30), and "What is the output" (30.0/30). The "Check the error" tasks have green checkmarks next to them. The "What is the output" task has a red exclamation mark next to it. On the right, there is a "Problem" tab showing the following Java code:

```
public class Main {  
    public static void main(String[] args) {  
        int a = 10;  
        if(a > 5) {  
            int a = 100;  
        }  
        System.out.println(a);  
    }  
}
```

The "Result" tab is currently not visible. A message on the right says "You have max 2 attempts to score in this question." Below it, under "Options", there are two radio buttons: "Yes" (checked) and "No". The status bar at the bottom shows "23°C Rain showers" and the date "09-08-2022".

This screenshot shows the same Java course assignment page as the first one, but with a different Java code snippet in the "Problem" tab. The code is identical to the one in the first screenshot, but the output is now displayed in the "Result" tab:

```
public class Main {  
    public static void main(String[] args) {  
        for(int i = 0; i < 3; i++) {  
            System.out.print(i + " ");  
        }  
        System.out.print(i + " ");  
    }  
}
```

The "Result" tab shows the output "0 1 2 ". The rest of the page, including the assignment details, task list, and options section, remains the same.

Lecture 4 : Conditionals and Loops
Deadline
Jul 23, 2022, 11:59 PM

Check the error • 30.0/30
What is the output • 30.0/30

Assignment
Score: 600.00/600 100.0%
Total Salary • 120.0/120
Multiplication Table • 120.0/120
Sum of even & odd • 120.0/120

What is the output?
Send Feedback

public class Main {
 public static void main(String[] args) {
 int a = 10;
 while(a > 5) {
 int b = 1;
 System.out.print(b + " ");
 b++;
 }
 }
}

You have max 2 attempts to score in this question.
Options
This problem has only one correct answer
Attempt left: 1/2
1 1 1 1 ✓
Error
Infinite loop
Correct Answer

Assignment

1. Total Salary
2. Multiplication Table
3. Sum of even & odd
4. Factors
5. Find power of a number

Total Salary

Send Feedback

Write a program to calculate the total salary of a person. The user has to enter the basic salary (an integer) and the grade (an uppercase character), and depending upon which the total salary is calculated as -

```

totalSalary = basic +hra + da +allow - pf;

```

where :

```

hra = 20% of basic
da = 50% of basic
allow = 1700 if grade = 'A'
allow = 1500 if grade = 'B'
allow = 1300 if grade = 'C' or any other character
pf = 11% of basic.

```

The screenshot shows a Java code editor with the following code:

```

1+ import java.util.Scanner;
2+ public class Main {
3+
4+     public static void main(String[] args) {
5+         // Write your code here
6+         Scanner s=new Scanner(System.in);
7+         int basic=s.nextInt();
8+         char grade=s.next().charAt(0);
9+
10+
11+        double hra=0.2*basic;
12+        double da=(0.5)*basic;
13+        double allow;
14+        double pf=(0.11)*basic;
15+        double ts;
16+
17+        if(grade=='A'){
18+            allow=1700;
19+        }
20+        else if(grade=='B'){
21+            allow=1500;
22+        }
23+        else{
24+            allow=1300;
25+        }
26+        ts=(basic+hra+da)+allow-pf;
27+        // double ts=Math.round(ts);
28+        int output=(int)Math.round(ts);
29+        // int output=(int)ts;
30+        System.out.println(output);
31+    }
32+
33+ }

```

Below the code editor are navigation buttons: < PREVIOUS, > NEXT, CUSTOM INPUT, and SUBMIT SOLUTION. The system tray at the bottom shows weather information: 23°C Light rain, 11:27, and the date 09-08-2022.

Multiplication Table

Send Feedback

Write a program to print multiplication table of n.

Input Format :

A single integer, n.

Output Format :

First 10 multiples of n each printed in new line.

Constraints :

0 <= n <= 10,000

Sample Input 1:

The screenshot shows a Java code editor with the following code:

```

1+ import java.util.Scanner;
2+ public class Main {
3+
4+     public static void main(String[] args) {
5+         // Write your code here
6+         Scanner s=new Scanner(System.in);
7+         int n=s.nextInt();
8+
9+         // int mul;
10+        // int i=1;
11+        // while(i<=10){
12+        //     mul=n*i;
13+        //     System.out.println(n*i);
14+        //     i++;
15+        // }
16+        for (int i=1;i<=10;i++){
17+            System.out.println(n*i);
18+        }
19+
20+    }
21+
22+ }

```

Below the code editor are navigation buttons: < PREVIOUS, > NEXT, CUSTOM INPUT, and SUBMIT SOLUTION. The system tray at the bottom shows weather information: 23°C Light rain, 11:27, and the date 09-08-2022.

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classroom.codingninjas.com/app/classroom/me/19552/content/388785/offering/5517923/problem/466

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ASK/VIEW DOUBT SOLUTION HINT

Sum of even & odd
Send Feedback

Write a program to input an integer N and print the sum of all its even digits and sum of all its odd digits separately.

Digits mean numbers, not the places! That is, if the given integer is "13245", even digits are 2 & 4 and odd digits are 1, 3 & 5.

Input format :
Integer N

Output format :
Sum_of_Even_Digits Sum_of_Odd_Digits
(Print first even sum and then odd sum separated by space)

Constraints

◀ PREVIOUS ▶ NEXT CUSTOM INPUT SUBMIT SOLUTION

Type here to search

```

1+ import java.util.Scanner;
2+ public class Main {
3+
4+     public static void main(String[] args) {
5+         // Write your code here
6+         Scanner sc=new Scanner(System.in);
7+         int n=sc.nextInt();
8+         int last;
9+         int e=0,o=0;
10+
11+        while(n>0){
12+            last=n%10;
13+
14+            if(last%2==0)
15+                e=e+last;
16+            else
17+                o=o+last;
18+            n=n/10;
19+
20+        }
21+
22+        System.out.println(e+" "+o);
23+    }
24+

```

23°C Light rain 11:28 09-08-2022

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classroom.codingninjas.com/app/classroom/me/19552/content/388785/offering/5517923/problem/5001

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ASK/VIEW DOUBT SOLUTION

Factors
Send Feedback

Write a program to print all the factors of a number other than 1 and the number itself.

Input Format :
A single integer, n

Output Format :
All the factors of n excluding 1 and the number itself

Constraints :
0 <= n <= 10,000

◀ PREVIOUS ▶ NEXT CUSTOM INPUT SUBMIT SOLUTION

Type here to search

```

1+ import java.util.Scanner;
2+ public class Solution {
3+
4+     public static void main(String[] args) {
5+         // Write your code here
6+         Scanner sc=new Scanner(System.in);
7+         int n=sc.nextInt();
8+
9+         for(int i=2; i<n/2; i++)
10+        {
11+
12+            if(n%i==0)
13+            {
14+                System.out.print(i+" ");
15+
16+            }
17+
18+        }
19+
20+    }
21+
22+

```

23°C Light rain 11:28 09-08-2022

The screenshot shows a Java development environment on the Coding Ninjas platform. The code editor displays the following Java code:

```
1+ import java.util.Scanner;
2+ import java.lang.Math;
3+
4+ public class Solution {
5+
6+     public static void main(String[] args) {
7+         // Write your code here
8+         Scanner s=new Scanner(System.in);
9+         int n=s.nextInt();
10+        int p=s.nextInt();
11+        double res=Math.pow(n,p);
12+        //int res=(int)res;
13+        System.out.println((int)res);
14+
15+
16+    }
17+ }
```

The interface includes sections for 'Problem' and 'Result', a note about the problem requirements, input and output formats, constraints, and submission buttons.

5.Lec-5:-Patterns-1 [6-Videos 7-Problems]

Lecture

Introduction to Patterns

Basic Pattern

Square Patterns

Code : Square Pattern

Triangular Patterns

Code : Triangular Star Pattern

Code : Triangle Number Pattern

Code : Reverse Number Pattern

Character Patterns - 1

Code : Alpha Pattern

Character Patterns - 2

Code : Character Pattern

Code : Interesting Alphabets

The screenshot shows a Java code editor with the following code:

```
1+ import java.util.Scanner;
2+ public class Solution {
3+     public static void main(String[] args) {
4+
5+         /* Your class should be named Solution,
6+          * Read input as specified in the question.
7+          * Print output as specified in the question.
8+         */
9+
10+        Scanner sc=new Scanner(System.in);
11+        int n=sc.nextInt();
12+
13+        int i=1;
14+        while(i<=n){
15+            int j=1;
16+            while(j<=n){
17+                System.out.print(n);
18+                j++;
19+            }
20+            System.out.println();
21+            i++;
22+        }
23+        for(int i=0;i<n;i++){
24+            for(int j=0;j<n;j++){
25+                System.out.print(n);
26+            }
27+            System.out.println();
28+        }
29+
30+    }
31+
32+ }
```

Below the code, there is a description of the problem:

Code : Square Pattern
Send Feedback

Print the following pattern for the given N number of rows.

Pattern for N = 4

```
4444
4444
4444
4444
```

Input format :

```
Integer N (Total no. of rows)
```

Output format :

```
Pattern in N lines
```

Submit Solution

The screenshot shows a Java code editor with the following code:

```
1+ import java.util.Scanner;
2+ public class Solution {
3+
4+
5+     public static void main(String[] args) {
6+
7+         /* Your class should be named Solution,
8+          * Read input as specified in the question.
9+          * Print output as specified in the question.
10+         */
11+        Scanner s=new Scanner (System.in);
12+        int n=s.nextInt();
13+
14+        int i=1;
15+        while(i<=n){
16+            int j=1;
17+            while(j<=i){
18+                System.out.print("*");
19+                j++;
20+            }
21+            System.out.println();
22+            i++;
23+        }
24+
25+    }
26+
27+ }
```

Below the code, there is a description of the problem:

Code : Triangular Star Pattern
Send Feedback

Print the following pattern for the given N number of rows.

Pattern for N = 4

```
*
**
***
****
```

Note : There are no spaces between the stars (*).

Input format :

```
Integer N (Total no. of rows)
```

Output format :

```
Pattern in N lines
```

Submit Solution

Lecture 5 : Patterns 1

Deadline
Jul 30, 2022, 11:59 PM

Code : Triangular Star Pattern 120.0/120

Code : Triangle Number Pattern 120.0/120

Code : Reverse Number Pattern 120.0/120

Character Patterns - 1 07:27

Code : Alpha Pattern 120.0/120

Character Patterns - 2 07:46

Code : Character Pattern 120.0/120

Code : Triangle Number Pattern

Send Feedback

Print the following pattern for the given N number of rows.

Pattern for N = 4

```
1
22
333
4444
```

Input format :
Integer N (Total no. of rows)

Output format :
Pattern in N lines

```
1+ import java.util.Scanner;
2+ public class Solution {
3+
4+     public static void main(String[] args) {
5+
6+         /* Your class should be named Solution,
7+          * Read input as specified in the question,
8+          * Print output as specified in the question.
9+         */
10+        Scanner s=new Scanner (System.in);
11+        int n=s.nextInt();
12+
13+        int i=1;
14+        while(i<=n){
15+            int j=1;
16+            while(j<=i){
17+                System.out.print(j);
18+                j++;
19+            }
20+            System.out.println();
21+            i++;
22+        }
23+    }
24+}
```

< PREVIOUS > NEXT CUSTOM INPUT SUBMIT SOLUTION

Lecture 5 : Patterns 1

Deadline
Jul 30, 2022, 11:59 PM

Code : Triangular Star Pattern 120.0/120

Code : Triangle Number Pattern 120.0/120

Code : Reverse Number Pattern 120.0/120

Character Patterns - 1 07:27

Code : Alpha Pattern 120.0/120

Character Patterns - 2 07:46

Code : Character Pattern 120.0/120

Code : Interesting Alphabets 120.0/120

Code : Reverse Number Pattern

Send Feedback

Print the following pattern for the given N number of rows.

Pattern for N = 4

```
1
21
321
4321
```

Input format :
Integer N (Total no. of rows)

Output format :
Pattern in N lines

```
1+ import java.util.Scanner;
2+ public class Solution {
3+
4+     public static void main(String[] args) {
5+
6+         /* Your class should be named Solution,
7+          * Read input as specified in the question,
8+          * Print output as specified in the question.
9+         */
10+        Scanner s=new Scanner (System.in);
11+        int n=s.nextInt();
12+        int p=1;
13+
14+        int i=1;
15+        while(i<=n){
16+            p=1;
17+            while(j<=i){
18+                p=1;
19+                int j=i;
20+                while(j>i){
21+                    p--;
22+                    j--;
23+                }
24+                System.out.print(p);
25+                j++;
26+            }
27+            System.out.println();
28+            i++;
29+        }
30+    }
31+}
```

< PREVIOUS > NEXT CUSTOM INPUT SUBMIT SOLUTION

Lecture 5 : Patterns 1

Deadline: Jul 30, 2022, 11:59 PM

Code : Alpha Pattern

Send Feedback

Print the following pattern for the given N number of rows.

Pattern for N = 3

A
BB
CCC

Input format :

Integer N (Total no. of rows)

Output format :

Pattern in N lines:

Code

```
1. import java.util.Scanner;
2. public class Solution {
3.
4.     public static void main(String[] args) {
5.
6.         /* Your class should be named Solution,
7.          * Read input as specified in the question.
8.          * Print output as specified in the question.
9.         */
10.        Scanner s=new Scanner (System.in);
11.        int n=s.nextInt();
12.
13.        int i=1;
14.        while(i<=n){
15.            int j=1;
16.            while(j<=i){
17.                System.out.print((char)(('A'+i-1)));
18.                j++;
19.            }
20.            System.out.println();
21.            i++;
22.        }
23.    }
24. }
```

< PREVIOUS > NEXT

CUSTOM INPUT

SUBMIT SOLUTION

Lecture 5 : Patterns 1

Deadline: Jul 30, 2022, 11:59 PM

Code : Character Pattern

Send Feedback

Print the following pattern for the given N number of rows.

Pattern for N = 4

A
BC
CDE
DEFG

Input format :

Integer N (Total no. of rows)

Output format :

Pattern in N lines:

Code

```
1. import java.util.Scanner;
2. public class Solution {
3.
4.     public static void main(String[] args) {
5.
6.         Scanner s=new Scanner (System.in);
7.         int n=s.nextInt();
8.
9.         int i=1;
10.
11.        while(i<=n){
12.            char p=(char)(('A'+i-1));
13.            int j=i;
14.            while(j<=i){
15.                System.out.print(p);
16.                p=(char)(p+1);
17.                j++;
18.            }
19.            System.out.println();
20.            i++;
21.        }
22.    }
23. }
```

< PREVIOUS > NEXT

CUSTOM INPUT

SUBMIT SOLUTION

The screenshot shows a Java coding environment with the following details:

- Title:** Code : Interesting Alphabets
- Description:** Print the following pattern for the given number of rows.
- Pattern for N = 5:**

```
E  
DE  
CDE  
BCDE  
ABCDE
```
- Input format:** N (Total no. of rows)
- Output format:** Pattern in N lines
- Solution Code:**

```
1 import java.util.*;  
2 public class Solution {  
3       
4         public static void main(String[] args) {  
5             /* Your class should be named Solution.  
6             * Read input as specified in the question.  
7             * Print output as specified in the question.  
8             */  
9             Scanner sc = new Scanner(System.in);  
10            int n = sc.nextInt();  
11            // int n;  
12            int i=1;  
13            char p=(char)(65+n);  
14            while(i<n){  
15                  
16                int j=1;  
17                p=(char)(p-i);  
18                while(j<i){  
19                    System.out.print(p);  
20                    p+=1;  
21                    j+=1;  
22                }  
23                System.out.println();  
24                i++;  
25            }  
26            System.out.println();  
27        }  
28        //  
29        //  
30        //  
31        //  
32    }  
33    char c=(char)(65+n);  
34    for(int i=1;i<N;i++)  
35        r
```
- Buttons:** PREVIOUS, NEXT, CUSTOM INPUT, SUBMIT SOLUTION

6.Lec-6:-Patterns-2 [3-Videos 9-Problems]

Lecture

1. Mirror Image Pattern
2. Code : Mirror Image Number Pattern
3. Inverted Triangle
4. Code : Inverted Number Pattern
5. Isosceles Triangle
6. Code : Star Pattern
7. Code : Triangle of Numbers
8. Code : Diamond of stars

The screenshot shows a web-based Java course interface. On the left, there's a sidebar with a user profile icon and a list of assignments. The main area displays a problem titled "Code : Mirror Image Number Pattern". The problem description asks to print a mirror image number pattern for a given N number of rows. It provides sample output for N=4: 1234, 123, 12, 1. Below the sample output, it says "The dots represent spaces." The input format is "integer N (Total no. of rows)" and the output format is "Pattern in N lines". A code editor on the right contains the following Java code:

```
1- import java.util.Scanner;
2+ public class Solution {
3+     public static void main(String[] args) {
4+         Scanner s=new Scanner(System.in);
5+         int n=s.nextInt();
6+
7+         int i=1;
8+         while(i<=n)
9+         {
10+             int j=i;
11+             int p=i;
12+             while(j<=n-i){
13+                 System.out.print(" ");
14+                 j++;
15+             }
16+             while(j<=n){
17+                 System.out.print(p);
18+                 j++;
19+                 p++;
20+             }
21+             System.out.println();
22+             i++;
23+         }
24+     }
25+ }
```

```
import java.util.Scanner;

public class Solution {

    public static void main(String[] args) {

        Scanner s=new Scanner(System.in);

        int n=s.nextInt();

        int i=1;

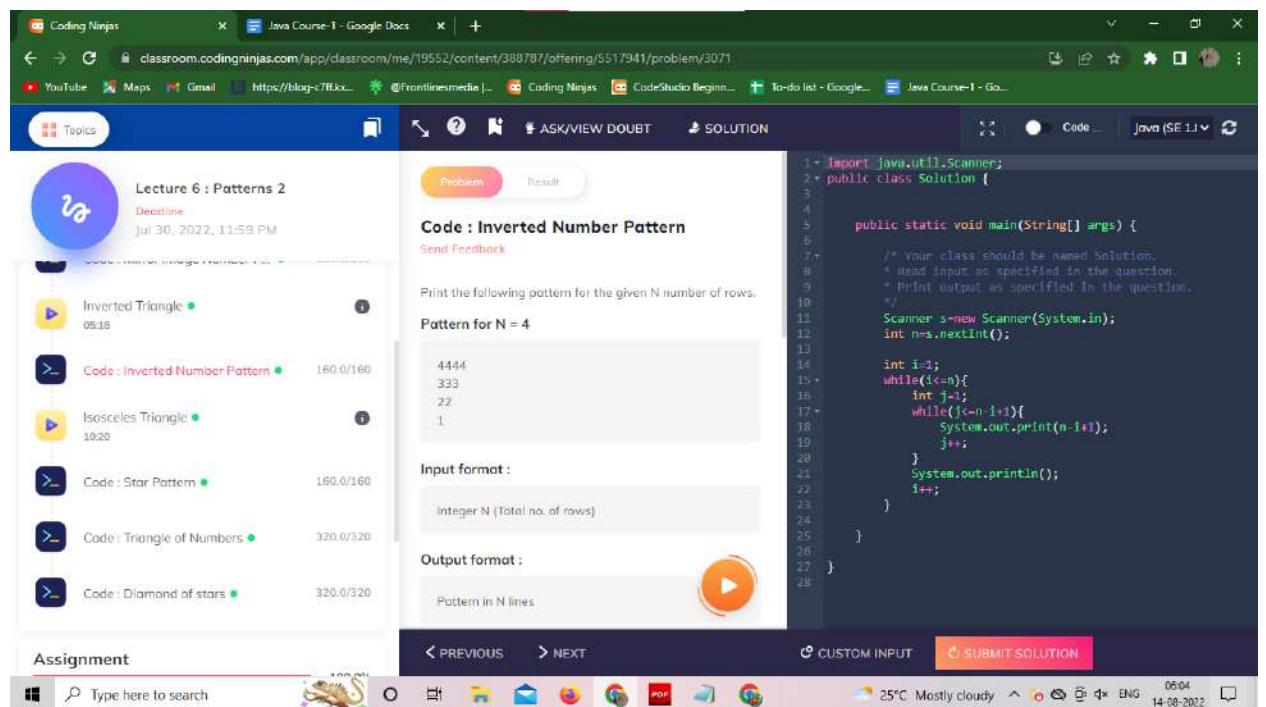
        while(i<=n)

    {
```

```
int j=1;  
  
int p=1;  
  
while(j<=n-i){  
  
    System.out.print(" ");  
  
    j+=1;  
  
}  
  
while(j<=n){  
  
    System.out.print(p);  
  
    j+=1;  
  
    p+=1;  
  
}  
  
System.out.println();  
  
i+=1;
```

}

}



```
import java.util.Scanner;
```

```
public class Solution {
```

```
    public static void main(String[] args) {
```

```
Scanner s=new Scanner(System.in);

int n=s.nextInt();

int i=1;

while(i<=n){

    int j=1;

    while(j<=n-i+1){

        System.out.print(n-i+1);

        j++;

    }

    System.out.println();

    i++;

}

}
```

The screenshot shows a web-based Java course interface. On the left, there's a sidebar with a purple circular icon, the title "Lecture 6 : Patterns 2", a deadline "Jul 30, 2022, 11:59 PM", and a list of assignments:

- Isoceles Triangle • 10:20
- Code : Star Pattern • 160.0/160
- Code : Triangle of Numbers • 320.0/320
- Code : Diamond of stars • 320.0/320

Below the sidebar, there's a section for "Assignment" with a progress bar at 100.0% and a score of 640.00/640. The assignment list includes:

- Half Diamond Pattern • 160.0/160

The main content area has tabs for "Problem" and "Result". Under "Problem", it says "Code : Star Pattern" and "Send Feedback". It asks to "Print the following pattern" for "Pattern for N = 4":

```
....*
....**
....***
....****
....*****
```

The dots represent spaces.

Under "Input Format:", there's a text input field with "N (Total no. of rows)". Under "Output Format:", there's a play button icon.

Code editor (right side):

```
1- import java.util.Scanner;
2- public class Solution {
3-     public static void main(String[] args) {
4-         Scanner s=new Scanner(System.in);
5-         int n=s.nextInt();
6-
7-
8-
9-
10-        int i=1;
11-        while(i<=n){
12-            int spaces=1;
13-            while(spaces<n-i){
14-                System.out.print(" ");
15-                spaces++;
16-            }
17-
18-            int j=i;
19-            while(j>i){
20-                System.out.print("*");
21-                j--;
22-            }
23-
24-            int dec=i-1;
25-            while(dec>i){
26-                System.out.print("*");
27-                dec--;
28-            }
29-
30-            System.out.println();
31-            i++;
32-        }
33-    }
34- }
```

Buttons at the bottom include "PREVIOUS", "NEXT", "CUSTOM INPUT", and a red "SUBMIT SOLUTION" button.

```
import java.util.Scanner;

public class Solution {

    public static void main(String[] args) {

        Scanner s=new Scanner(System.in);

        int n=s.nextInt();

        int i=1;

        while(i<=n){

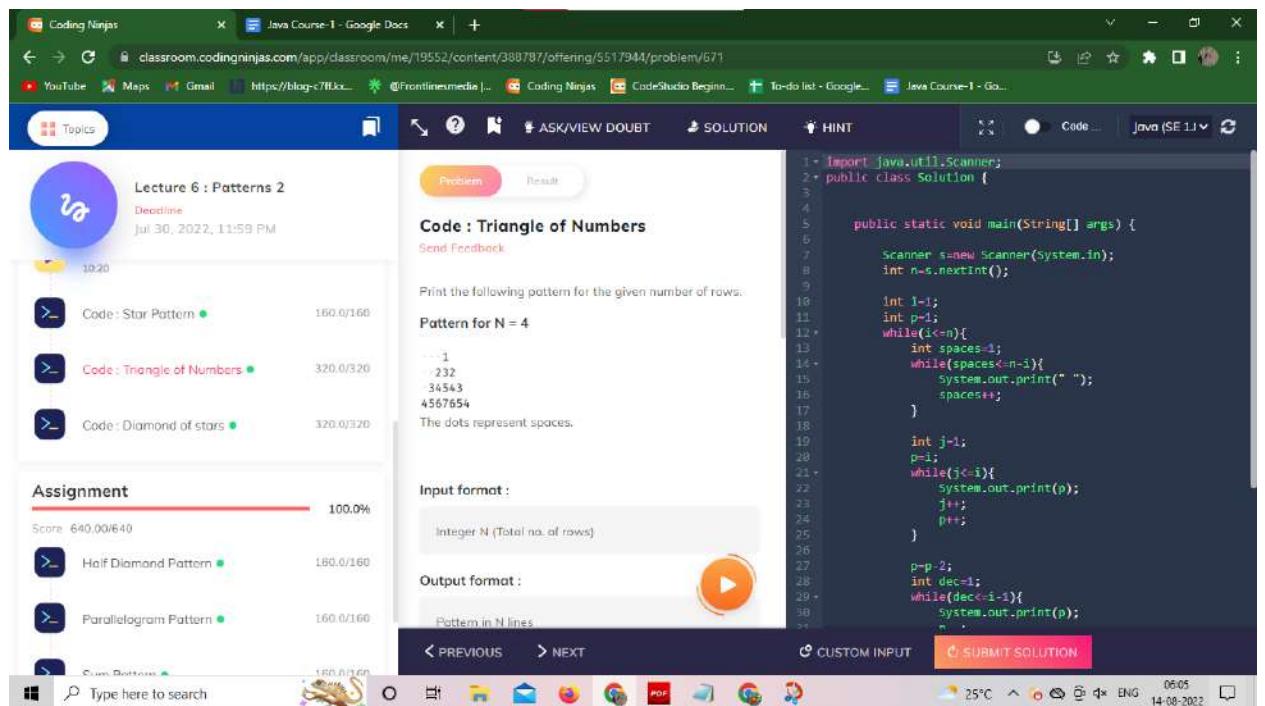
            int spaces=1;


```

```
while(spaces<=n-i){  
    System.out.print(" ");  
    spaces++;  
}  
  
int j=1;  
  
while(j<=i){  
    System.out.print("**");  
    j++;  
}  
  
int dec=i-1;  
  
while(dec>=1){  
    System.out.print("**");  
    dec--;  
}  
  
System.out.println();  
i++;  
}
```

```
}
```

```
}
```



```
import java.util.Scanner;
```

```
public class Solution {
```

```
    public static void main(String[] args) {
```

```
Scanner s=new Scanner(System.in);

int n=s.nextInt();

int i=1;

int p=1;

while(i<=n){

    int spaces=1;

    while(spaces<=n-i){

        System.out.print(" ");

        spaces++;

    }

    int j=1;

    p=i;

    while(j<=i){

        System.out.print(p);

        j++;

        p++;

    }

}
```

```
p=p-2;  
  
int dec=1;  
  
while(dec<=i-1){  
  
    System.out.print(p);  
  
    p--;  
  
    dec++;  
  
}  
  
System.out.println();  
  
i++;  
  
}  
  
}
```

The screenshot shows a Java course interface on Coding Ninjas. On the left, there's a sidebar with a user profile icon and sections for 'Topics' (Lecture 6: Patterns 2, Deadline Jul 30, 2022, 11:59 PM), 'Assignment' (Score 640.00/640, Half Diamond Pattern, Parallelogram Pattern, Sum Pattern), and 'Code' (Triangle of Numbers, Diamond of stars). The main content area displays a 'Problem' titled 'Code : Diamond of stars'. It asks to print a diamond pattern of stars for a given number of rows (N is always odd). Below the question is a sample output 'Pattern for N = 5' showing the pattern:

```
*****
 * *
 *****
 *   *
```

The dots represent spaces.

The input format is 'N (Total no. of rows and can only be odd)'. To the right, the solution code is provided in Java:

```
1+ Import java.util.Scanner;
2+ public class Solution {
3+     public static void main(String args[]){
4+         Scanner sc=new Scanner(System.in);
5+         int n = sc.nextInt();
6+
7+         int num=(n/2)+1;
8+         int count = num - 1;
9+         for(int i = 1; i <= num; i++) {
10+             for(int j = 1; j <= count; j++) {
11+                 System.out.print(" ");
12+             }
13+             count--;
14+
15+             for(int k = 1; k <= (2 * i) - 1; k++) {
16+                 System.out.print("*");
17+             }
18+
19+             System.out.println("");
20+         }
21+         count = 1;
22+
23+         for(int l = 1; l <= (num - 1); l++) {
24+             for(int m = 1; m <= count; m++) {
25+                 System.out.print(" ");
26+             }
27+
28+             count++;
29+
30+             for(int n = 1; n <= (2 * l) - 1; n++) {
31+                 System.out.print("*");
32+             }
33+
34+             System.out.println("");
35+         }
36+     }
37+ }
```

At the bottom, there are navigation buttons for 'PREVIOUS' and 'NEXT', and input fields for 'CUSTOM INPUT' and 'SUBMIT SOLUTION'.

```
import java.util.Scanner;

public class Solution {

    public static void main(String args[]){
        Scanner sc=new Scanner(System.in);

        int n = sc.nextInt();

        int num=(n/2)+1;

        int count = num - 1;

        for(int i = 1; i <= num; i++){

            for(int j = 1; j <= count; j++) {

```

```
System.out.print(" ");

}

count--;

for(int k = 1; k <= (2 * i) - 1; k++) {

    System.out.print("*");

}

System.out.println("");

}

count = 1;

for(int i = 1; i <= (num - 1); i++) {

    for(int j = 1; j <= count; j++) {

        System.out.print(" ");

    }

    count++;

}
```

```
for(int k = 1; k <= (2 * (num - i)) - 1; k++) {  
  
    System.out.print("*");  
  
}  
  
System.out.println("");  
  
}  
  
}  
  
}
```

Assignment

1. Half Diamond Pattern
2. Parallelogram Pattern
3. Sum Pattern
4. Odd Square

The screenshot shows a Java coding interface with the following details:

- Title Bar:** Coding Ninjas, Java Course-1 - Google Docs
- Address Bar:** classroom.codingninjas.com/app/classroom/me/19552/content/388787/offering/5517946/problem/5002
- Toolbar:** ASK/VIEW DOUBT, SOLUTION, Code, Java (SE 1.1)
- Code Area:** A code editor with the following Java code:

```
1+ import java.util.Scanner;
2+ public class Solution {
3+
4+     public static void main(String[] args) {
5+         // Write your code here
6+         int i, j;
7+         Scanner sc=new Scanner(System.in);
8+         int N=sc.nextInt();
9+
10+
11+         System.out.println("*");
12+
13+         for(i=1; i<=N; i++)
14+         {
15+             System.out.print("*");
16+
17+             for(j=i; j<i; j++)
18+             {
19+                 System.out.print(j);
20+             }
21+
22+             for(j=i-1; j>i; j--)
23+             {
24+                 System.out.print(j);
25+             }
26+             System.out.println("*");
27+
28+             // printf("\n");
29+         }
30+
31+         // Write your code here
32+     }
33+ }
```
- Sample Input 1:** 3
- Sample Output 1:**

```
*  
*1*  
*121*  
*12321*  
*121*  
*1*
```
- Sample Input 2:** 5
- Sample Output 2:**

```
*
```
- Buttons:** < PREVIOUS, > NEXT, CUSTOM INPUT, SUBMIT SOLUTION
- System Tray:** 25°C Mostly cloudy, 06:01, 14-08-2022

```
import java.util.Scanner;

public class Solution {

    public static void main(String[] args) {

        // Write your code here

        int i, j;

        Scanner sc=new Scanner(System.in);

        int N=sc.nextInt();

        System.out.println("*");
```

```
for(i=1; i<=N; i++)  
{  
    System.out.print("*");  
  
    for(j=1; j<=i; j++)  
    {  
        System.out.print(j);  
    }  
  
    for(j=i-1; j>=1; j--)  
    {  
        System.out.print(j);  
    }  
  
    System.out.println("*");  
}  
  
// Print the lower half of the pattern
```

```
for(i=N-1; i>=1; i--)

{
    System.out.print("*");

    for(j=1; j<=i; j++)

    {
        System.out.print(j);

    }

    for(j=i-1; j>=1; j--)

    {
        System.out.print(j);

    }

    System.out.println("*");

}

System.out.println("*");

}
```

2.

The screenshot shows a Java coding interface. At the top, there's a navigation bar with tabs like 'Coding Ninjas', 'Java Course-1 - Google Docs', and several browser links. Below the bar, there are buttons for 'ASK/VIEW DOUBT' and 'SOLUTION'. A 'Problem' tab is selected, indicated by a red oval. The main area contains a title 'Parallelogram Pattern' and a 'Send Feedback' button. It asks to write a program to print a parallelogram pattern for a given N number of rows. For N = 4, it shows the output as:

```
*****
 ****
  ***
   **
    *
```

The dots represent spaces. Below this, there's an 'Input Format:' section with a placeholder 'A single integer : N' and an 'Output Format:' section with a placeholder 'Required Pattern' and a play button icon. At the bottom, there are navigation buttons for 'PREVIOUS' and 'NEXT', a 'CUSTOM INPUT' button, and a prominent orange 'SUBMIT SOLUTION' button. The taskbar at the bottom shows various pinned icons and the system status bar indicating '25°C Mostly cloudy' and the date '14-08-2022'.`1+ import java.util.Scanner;
2+ public class Main {
3+
4+ public static void main(String[] args) {
5+ // Write your code here
6+
7+ Scanner sc = new Scanner(System.in);
8+ int n = sc.nextInt();
9+
10+ for (int i = 1; i <= n; i++) {
11+ for (int j = 1; j < i; j++)
12+ System.out.print(" ");
13+ for (int j = i; j <= n; j++)
14+ System.out.print("*");
15+ System.out.println();
16+ }
17+ }
18+ }`

```
import java.util.Scanner;
```

```
public class Main {
```

```
    public static void main(String[] args) {
```

```
        // Write your code here
```

```
        Scanner sc = new Scanner(System.in);
```

```
        int n = sc.nextInt();
```

```

for (int i = 1; i <= n; i++) {

    for (int j = 1; j <= i; j++)

        System.out.print(" ");

    for (int j = 1; j <= n; j++)

        System.out.print("*");

    System.out.println();

}

}

}

```

3.

The screenshot shows a Java development environment with the following details:

- Title Bar:** Coding Ninjas - Java Course-1 - Google Docs
- Code Editor:**

```

1 import java.util.*;
2 public class Main{
3     public static void main(String[] args) {
4         Scanner sc=new Scanner(System.in);
5         int n=sc.nextInt();
6         int sum=0;
7         // sc.close();
8         for(int i=1;i<=n;i++)
9         {
10             for(int k=1;k<=i;k++)
11             {
12                 if(k==i)
13                     System.out.print(k);
14                 else
15                     System.out.print(k+" ");
16             }
17             for(int j=1;j<=i;j++)
18             {
19                 System.out.print("=");
20             }
21             sum+=i;
22             System.out.println(sum);
23         }
24     }
25 }
26
27
28
29
30
31
32
33
34
35
36
37
38

```
- Problem Description:** Sum Pattern
- Input Format:** A single integer, N
- Output Format:** Required Pattern
- Constraints:** 0 <= N <= 50
- Buttons:** ASK/VIEW DOUBT, SOLUTION, PREVIOUS, NEXT, CUSTOM INPUT, SUBMIT SOLUTION, A-, A+, search bar, taskbar with various icons, system status (25°C, Mostly cloudy, 06:02, 14-08-2022).

```
import java.util.*;
```

```
public class Main{  
  
    public static void main(String[] args) {  
  
        Scanner sc=new Scanner(System.in);  
  
        int n=sc.nextInt();  
  
        int sum=0;  
  
        // sc.close();  
  
        for(int i=1;i<=n;i++)  
  
        {  
  
            for(int k=1;k<=i;k++)  
  
            {  
  
                if(k==i)  
  
                    System.out.print(k);  
  
                else  
  
                    System.out.print(k+ "+");  
  
            }  
  
            for(int j=1;j<=1;j++)  
  
            {
```

```
System.out.print("=");  
}  
  
sum=sum+i;  
  
System.out.println(sum);  
}  
}  
}
```

4.

Coding Ninja

Java Course - I - Google Docs

classroom.codingninja.com/app/classroom/me/19552/content/388787/offering/5517946/problem/5006

YouTube Maps Gmail https://blog-cf.lik... @FrontlineMedia ... Coding Ninja CodeStudio Beginner To-do list - Google Java Course - I - Go...

ASK/VIEW DOUBT SOLUTION

Problems Results

Odd Square

[Send Feedback](#)

Write a program to print the pattern for the given N number of rows.

For N = 4

```
1357  
3571  
5713  
7135
```

Input Format :

A single integer: N

Output Format :

```
1+ Import java.util.*;  
2+ public class Main {  
3+     public static void main(String[] args) {  
4+         Scanner sc=new Scanner(System.in);  
5+         int n=sc.nextInt();  
6+  
7+         int num=1;  
8+         for(int i=1;i<=n;i++)  
9+         {  
10+             int pr = num;  
11+             for(int j=i;j<n;j++)  
12+             {  
13+                 System.out.print(pr);  
14+                 pr+=2;  
15+                 if(i+j==n+1)  
16+                 {  
17+                     pr-=1;  
18+                 }  
19+             }  
20+             num+=2;  
21+             System.out.println();  
22+         }  
23+     }  
24+ }
```

Code...

Java (SE 11)

```
import java.util.*;
```

```
public class Main {  
  
    public static void main(String[] args) {  
  
        Scanner sc=new Scanner(System.in);  
  
        int n=sc.nextInt();  
  
        int num=1;  
  
        for(int i=1;i<=n;i++)  
  
        {  
  
            int pr = num;  
  
            for(int j=1;j<=n;j++)  
  
            {  
  
                System.out.print(pr);  
  
                pr+=2;  
  
                if(i+j==n+1)  
  
                {  
  
                    pr=1;  
  
                }  
  
            }  
  
            num+=2;  
  
            System.out.println();  
        }  
    }  
}
```

```
    }  
}  
}
```

7.Lec-7:-Operators & For Loops [9-Videos 34-Problems]

Lecture

1. Increment decrement operators
2. Bitwise Output
3. Find error
4. Bitwise operators - 1
5. Bitwise operator
6. Correct Output
7. Bitwise operators - 2
8. Bitwise Operator
9. Guess the output
10. Guess the output
11. Guess the output
12. Guess the output
13. Guess the output
14. Assignment Operators
15. Correct Output
16. Precedence & Associativity
17. Guess the Output
18. For loop
19. Nth Fibonacci Number
20. For loop variations
21. For Loop
22. Guess the Output
23. Break Keyword
24. What is the output
25. What is the output
26. What is the output
27. Guess the Output
28. Correct Output

- 29. Find the error
- 30. Continue Keyword
- 31. Skip iteration
- 32. What is the output
- 33. What is the output
- 34. What is the output
- 35. What is the output
- 36. All Prime Numbers
- 37. Notes

The screenshot shows a computer desktop with a browser window open to a Java course page on Coding Ninjas. The browser tabs include 'Coding Ninjas', 'Java Course-1 - Google Docs', and the main course page.

Lecture 7 : Operators & For Loop
Deadline: Jul 30, 2022, 11:59 PM

Score: 1050.00/1110

Completed tasks:

- Increment decrement operators (09:54)
- Bitwise Output (30.0/30)
- Find error (30.0/30)
- Bitwise operators - 1 (07:00)
- Bitwise operator (30.0/30)
- Correct Output (30.0/30)
- Bitwise operators - 2 (07:16)

Bitwise Output

Send Feedback

You have max 2 attempts to score in this question.

Attempts left: 1/2

This problem has only one correct answer.

Options:

- 60
- 61 ✓
- 62
- error

Correct Answer

Solution Description

```

public static void main (String[] args) {
    int a=10,b=50;
    a++;
    --b;
    int c=a--+b--;
    System.out.print(++c);
}

```

0++a=11, --b,b=49
a=10
b=48
print(++c)->print(61)

< PREVIOUS > NEXT

SEARCH Type here to search

Lecture 7 : Operators & For Loop

Deadline: Jul 30, 2022, 11:59 PM

Bitwise Output • 30.0/30

Find error • 30.0/30

Bitwise operators - 1 • 07:00

Bitwise operator • 30.0/30

Correct Output • 30.0/30

Bitwise operators - 2 • 07:16

Bitwise Operator • 30.0/30

Find error

Send Feedback

Which line(s) of the following code would give an error:

```
public static void main (String[] args) {
    int a=10,b=20;
    System.out.println(a+++-b); //line 1
    System.out.println(a----+b); //line 2
    System.out.println(a+++++b); //line 3
    System.out.println(a+++++b); //line 4
}
```

line 2 ✓

line 3

line 4 ✓

Options

This problem may have one or more correct answers

Solution Description

As + operator and ++ operator have equal precedence.
Similarly - and -- have equal precedence.
So in line 2 ++b and in line 4 +-b gives an error.
To solve this error we can use +(++b).

PREVIOUS NEXT SUBMIT

Lecture 7 : Operators & For Loop

Deadline: Jul 30, 2022, 11:59 PM

Bitwise operators - 1 • 07:00

Bitwise operator • 30.0/30

Correct Output • 30.0/30

Bitwise operators - 2 • 07:16

Bitwise Operator • 30.0/30

Guess the output • 30.0/30

Guess the output • 30.0/30

Bitwise operator

Send Feedback

Choose the correct output of the following code:

```
public static void main (String[] args) {
    int a=10,b=20;
    int c=a&b;
    System.out.print(c);
    int d=a|b;
    System.out.print(d);
    int e=a^b;
    System.out.print(e);
    int f=c+d+e;
    System.out.print(f);
}
```

03030-60

03030-61 ✓

03030-60

03030-59

Options

This problem has only one correct answer

Solution Description

c=10&20=0,
d=10|20=30,
e=10^20=30,
f=0+30+30=60.
→f=61.

PREVIOUS NEXT SUBMIT

Lecture 7 : Operators & For Loop
Deadline Jul 30, 2022, 11:59 PM

Bitwise operator • 30.0/30

Correct Output • 30.0/30

Bitwise operators - 2 • 07:16

Bitwise Operator • 30.0/30

Guess the output • 30.0/30

Guess the output • 30.0/30

Guess the output • 30.0/30

Correct Output

Send Feedback

Choose the correct output for the given code:

```
public static void main (String[] args) {  
    int a=10,b=-20;  
    System.out.print(a^b);  
}
```

Options

This problem has only one correct answer

-26 ✓

26

35

-35

Correct Answer

PREVIOUS NEXT SUBMIT

Lecture 7 : Operators & For Loop
Deadline Jul 30, 2022, 11:59 PM

Bitwise operators - 2 • 07:16

Bitwise Operator • 30.0/30

Guess the output • 30.0/30

Bitwise Operator

Send Feedback

What will be the output ?

```
public static void main(String args[]) {  
    int a = 42;  
    int b = ~a; (there is tilde sign before a)  
    System.out.print(a + " " + b);  
}
```

Options

This problem has only one correct answer

42 42

42 -43 ✓

42 40

43 43

Correct Answer

PREVIOUS NEXT SUBMIT

Lecture 7 : Operators & For Loop
Deadline Jul 30, 2022, 11:59 PM

Bitwise Operator • 30.0/30
Guess the output • 30.0/30
Guess the output • 30.0/30
Guess the output • 30.0/30
Assignment Operators • 02:50

Problem Result

Guess the output
Send Feedback

```
class Output {  
    public static void main(String args[]) {  
        int x , y = 1;  
        x = 10;  
        if (x != 10 && x / 0 == 0)  
            System.out.println(y);  
        else  
            System.out.println(+y);  
    }  
}
```

You have max 2 attempts to score in this question.
Options
Attempt left: 1/2

This problem has only one correct answer

1 ✓
 1
 Runtime error because of division by zero in if condition
 None of these

Correct Answer

PREVIOUS NEXT SUBMIT

Lecture 7 : Operators & For Loop
Deadline Jul 30, 2022, 11:59 PM

Assignment Operators • 02:50
Correct Output • 30.0/30

Problem Result

Guess the output
Send Feedback

```
class Solution {  
    public static void main(String args[]) {  
        int x = 15;  
        int y = x++;  
        int z = ++x;  
        System.out.println(y + " " + z);  
    }  
}
```

You have max 2 attempts to score in this question.
Options
Attempt left: 1/2

This problem has only one correct answer

15 16
 16 17
 15 17 ✓
 16 16

Correct Answer

PREVIOUS NEXT SUBMIT

Lecture 7 : Operators & For Loop
Deadline Jul 30, 2022, 11:59 PM

Problem Result

Guess the output

Send Feedback

```
class Solution {
    public static void main(String args[])
    {
        int g = 3;
        System.out.print(++g * 8);
    }
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Attempts left: 1/2

24

32 ✓

Correct Answer

< PREVIOUS > NEXT

SUBMIT

Type here to search

25°C Mostly cloudy 06:23 14-08-2022

Lecture 7 : Operators & For Loop
Deadline Jul 30, 2022, 11:59 PM

Problem Result

Guess the output

Send Feedback

```
class Solution {
    public static void main(String args[])
    {
        int x = 10;
        int y = 20;
        if(x++ > 10 && ++y > 20)
            System.out.print("Inside if ");
        else{
            System.out.print("Inside else ");
        }
        System.out.println(x + " " + y);
    }
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Attempts left: 1/2

Inside if 11 21

Inside if 10 21

Inside else 11 20 ✓

Inside else 11 21

Correct Answer

< PREVIOUS > NEXT

SUBMIT

Type here to search

25°C Mostly cloudy 06:24 14-08-2022

Lecture 7 : Operators & For Loop

Deadline Jul 30, 2022, 11:59 PM

Assignment Operators • 02:50

Correct Output • 30.0/30

Precedence & Associativity • 08:32

Guess the Output • 30.0/30

For loop • 09:40

Guess the output

Send Feedback

```
class Solution {
    public static void main(String args[])
    {
        int x = 10;
        int y = 20;
        if(x++ > 10 || ++y > 20){
            System.out.print("Inside if ");
        }else{
            System.out.print("Inside else ");
        }
        System.out.println(x + " " + y);
    }
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Inside if 11 21 ✓

Inside if 10 21

Inside else 11 20

Inside else 11 21

Correct Answer

Attempts left: 1/2

Lecture 7 : Operators & For Loop

Deadline Jul 30, 2022, 11:59 PM

Assignment Operators • 02:50

Correct Output • 30.0/30

Precedence & Associativity • 08:32

Guess the Output • 30.0/30

For loop • 09:40

Nth Fibonacci Number • 120.0/120

For loop variations • 09:40

Correct Output

Send Feedback

Select the correct output for the following code:

```
public static void main (String[] args) {
    int a=5;
    a+=5+(++a)+(a++);
    System.out.print(a);
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

20

22 ✓

17

18

Correct Answer

Solution Description

$a=5+(++a)+(a++)$
 $=5+5+6=22$

Attempts left: 0/2

Lecture 7 : Operators & For Loop

Deadline Jul 30, 2022, 11:59 PM

Precedence & Associativity 08:32

Guess the Output 30.0/30

For loop 09:40

Nth Fibonacci Number 120.0/120

For loop variations 09:40

For Loop 30.0/30

Guess the Output 0/30

Guess the Output

Send Feedback

```
public static void main (String[] args) {
    int a=10;
    a+=a-a/3+6*a;
    System.out.print(a);
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

50
70
76
86 ✓

Correct Answer

Solution Description

$a=10-a/3+6*a$
 $a=10-10/3+6*10$
 $a=10+11-10=86$

Nth Fibonacci Number

[Send Feedback](#)

Nth term of Fibonacci series $F(n)$, where $F(n)$ is a function, is calculated using the following formula -

$$F(n) = F(n-1) + F(n-2),$$

$$\text{Where, } F(1) = 0,$$

$$F(2) = 1$$

Provided N you have to find out the Nth Fibonacci Number.

Input Format :

The first line of each test case contains a real number 'N'.

Output Format :

For each test case, return its equivalent Fibonacci number.

Constraints:

$1 \leq N \leq 10000$

Where 'N' represents the number for which we have to find its equivalent Fibonacci number.

Time Limit: 1 second

Sample Input 1:

6

Sample Output 1:

8

Explanation of Sample Input 1:

Now the number is '6' so we have to find the "6th" Fibonacci number

So by using the property of the Fibonacci series i.e

[1, 1, 2, 3, 5, 8]

So the “6th” element is “8” hence we get the output.

```
1 import java.util.Scanner;
2
3 public class Solution {
4
5     static int f(int n){
6         if (n<=1)
7             return n;
8         return f(n-1)+f(n-2);
9     }
10
11
12     public static void main(String[] args) {
13         Scanner s=new Scanner(System.in);
14         int n=s.nextInt();
15
16         int a=1;
17         int b=1;
18         int c=0;
19
20         // System.out.println(f(n));
```

```
if(n==1)                                21
{
    System.out.println(n);                22
    return;                            23
}
for(int i=2;i<n;i++)                     24
{
    c=a+b;                           25
    a=b;                           26
    b=c;                           27
}
System.out.println(c);                  28
}
}
}
```

Lecture 7 : Operators & For Loop
Deadline: Jul 30, 2022, 11:59 PM

1 Doubt asked

- For loop variations • 0:40
- For Loop • 30.0/30
- Guess the Output • 0/30
- Break Keyword • 0:54
- What is the output • 30.0/30
- What is the output • 30.0/30
- What is the output • 30.0/30

For Loop

Send Feedback

How many times will the following loop run?

```
for(int i=1;i<10;i+=2)
{
    System.out.println();
}
```

Options Attempts left: 1/2

This problem has only one correct answer

4 ✓
 3
 10
 infinite

Correct Answer

Solution Description

The loop would run for i=1,2,4,8.

< PREVIOUS > NEXT SUBMIT

Lecture 7 : Operators & For Loop
Deadline: Jul 30, 2022, 11:59 PM

0:40

- For Loop • 30.0/30
- Guess the Output • 0/30
- Break Keyword • 0:54
- What is the output • 30.0/30
- What is the output • 30.0/30
- What is the output • 30.0/30
- Guess the Output • 0/30

Guess the Output

Send Feedback

Which value(s) can be used to initialize i so that the loop is finite:

```
public static void main (String[] args) {
    for(int i=_>0;i=~%3)
    {
        System.out.print("%");
    }
}
```

Options Attempts left: 0/2

This problem may have one or more correct answers

1000
 729 ✓
 386
 483 ✓

The solution to this problem has been viewed

Solution Description

The value which is divisible by 3 would result in finite loop.

< PREVIOUS > NEXT SUBMIT

This screenshot shows a Java course problem page from Coding Ninjas. The main content area displays a question titled "What is the output" with the following code:

```
for(int i = 0; i < 5; i = i + 1){  
    System.out.print(i + " ");  
    i = i + 1;  
}
```

The question asks, "What will be the output the following code?" Below the code, there is a list of options for the user to choose from:

- 0 1 2 3 4
- 0 2 4 ✓
- 1 3
- 1 2 3 4 5

A "Correct Answer" button is located at the bottom right of the question area. The top navigation bar shows the URL classroom.codingninjas.com/app/classroom/me/19552/content/388798/offering/5517965/problem/1034. The taskbar at the bottom includes icons for File, Edit, Insert, and various file formats like PDF and Word.

This screenshot shows the same Java course problem page as the previous one, but with a different set of options selected. The question and code remain the same:

```
for(int i = 1; i < 5; i = i + 1){  
    System.out.print(i + " ");  
    i = i + 1;  
}
```

The question asks, "What will be the output the following code?" Below the code, there is a list of options for the user to choose from:

- 1 2 3 4
- Infinite 1s ✓
- Compilation error
- None of these

A "Correct Answer" button is located at the bottom right of the question area. The top navigation bar shows the URL classroom.codingninjas.com/app/classroom/me/19552/content/388798/offering/5517965/problem/1035. The taskbar at the bottom includes icons for File, Edit, Insert, and various file formats like PDF and Word.

Lecture 7 : Operators & For Loop
Deadline Jul 30, 2022, 11:59 PM

What is the output
Send Feedback

What will be the output ?

```
for(int i = 0; i < 2; i = i + 1) {
    for(int j = 0; j < 2; j = j + 1) {
        if(j == 1)
            break;
        System.out.print(j + " ");
    }
}
```

Options
Attempt left: 1/2

This problem has only one correct answer

0 1 0 1
 0 0 0 0
 0 0 ✓
 0 1

Correct Answer

PREVIOUS NEXT SUBMIT

Type here to search 25°C Mostly cloudy 06:27 14-08-2022

Lecture 7 : Operators & For Loop
Deadline Jul 30, 2022, 11:59 PM

What is the output
Send Feedback

Guess the Output
Send Feedback

Guess the output for the following code:

```
public static void main (String[] args) {
    int i=0;
    for(;;)
    {
        if(i==5)
            break;
        System.out.print(i);
        i++;
    }
}
```

Options
Attempt left: 0/2

This problem has only one correct answer

012345
 infinite loop
 01224 ✓
 compilation error

The solution to this problem has been viewed

Solution Description
The loop would execute for i=0,1,2,3,4

PREVIOUS NEXT SUBMIT

Type here to search 25°C Mostly cloudy 06:27 14-08-2022

Lecture 7 : Operators & For Loop

Deadline: Jul 30, 2022, 11:59 PM

Correct Output

Select the correct output for the following code:

```
public static void main (String[] args) {
    for(int i=7;i>0;)
    {
        System.out.print(i--);
    }
}
```

Options

This problem has only one correct answer.

Attempts left: 0/2

- 7531
- 642
- infinite loop ✓
- 753

Correct Answer

SUBMIT

Lecture 7 : Operators & For Loop

Deadline: Jul 30, 2022, 11:59 PM

Find the error

Send Feedback

Which code snippet would generate an error?

1.

```
for(int i=1;i++)
{
    if(i==5)
        break;
    System.out.print(i);
}
```

2.

```
for(int i=1;i++)
{
    if(i<5)
        System.out.print(i);
    else
        break;
```

Options

This problem has only one correct answer.

Attempts left: 0/2

- 1.
- 2.
- 3. ✓
- None of them

Correct Answer

Solution Description

In code snippet 2, the statement after break is never executed hence it gives an error.

SUBMIT

Find the error

[Send Feedback](#)

Which code snippet would generate an error?

1.

```
for(int i=1;;i++)  
{ if(i==5)  
    break;  
  
    System.out.print(i);  
  
}
```

2.

```
for(int i=1;;i++)  
{ if(i<5)  
    System.out.print(i);  
  
    else  
  
    break;  
  
}
```

3.

```
for(int i=1;;i++)  
{ if(i>5)  
    {  
  
    break;
```

```

        System.out.print("break statement reached");

    }

    System.out.print(i);

}

```

The screenshot shows a web-based Java course interface. At the top, there's a navigation bar with tabs like 'Coding Ninjas', 'Java Course-1 - Google Docs', etc. Below the navigation bar, the main content area has a dark header with 'Tools' and 'ASK/VIEW DOUBT' buttons.

Lecture 7 : Operators & For Loop
Deadline: Jul 30, 2022, 11:59 PM

Problem

Skip iteration
[Send Feedback](#)

Which of these jump statements can skip processing remainder of code in its body for a particular iteration ?

break

return

continue ✓

Correct Answer: continue

Solution Description:

"break" is used to exit from the current loop.
"return" statement is used to exit from the current function.
"continue" is used to skip the current iteration of a loop and continue with the next iteration.

At the bottom, there are buttons for 'PREVIOUS' and 'NEXT', and a large orange 'SUBMIT' button. The task bar at the very bottom shows various application icons and the system clock.

The screenshot shows a Windows desktop environment with a browser window open to a Coding Ninjas course page. The page displays a list of assignments under 'Lecture 7 : Operators & For Loop'. One assignment, 'What is the output', is selected. The code provided is:

```
int i = 1;
while(i < 5) {
    if(i == 3) {
        break;
    }
    System.out.print(i + " ");
    i++;
}
```

The question asks for the output, with a note that there is only one correct answer. The correct option is '1 2' (radio button checked). The 'SUBMIT' button is visible at the bottom.

This screenshot shows the same assignment page after the correct answer has been submitted. The feedback indicates that the answer is correct. The code and question remain the same as in the previous screenshot.

The screenshot shows a web browser window with the URL classroom.codingninjas.com/app/classroom/me/19552/content/388798/offering/5517970/problem/1084. The page is titled "Lecture 7 : Operators & For Loop" with a deadline of "Jul 30, 2022, 11:59 PM". On the left, there's a sidebar with various assignments and notes. The main content area displays a question titled "What is the output" with the following code:

```
int i = 1;
while(i < 3) {
    int j = 1;
    while(j < 5) {
        if(j == 3) {
            break;
        }
        System.out.print(j + " ");
        j++;
    }
    i++;
}
```

The question has two correct answers: 1 2 1 2 and 1 2 3 4 1 2 3 4. The user has selected the first option. The assignment score is 1080.00/1080.

This screenshot shows the same assignment page after the user has selected the correct answer. The correct answer is now highlighted in red: 1 2 4 5 1 2 4 5. The assignment score remains at 1080.00/1080.

All Prime Numbers

[Send Feedback](#)

Given an integer N, print all the prime numbers that lie in the range 2 to N (both inclusive).

Print the prime numbers in different lines.

Input Format :

Integer N

Output Format :

Prime numbers in different lines

Constraints :

$1 \leq N \leq 100$

Sample Input 1:

9

Sample Output 1:

2

3

5

7

Sample Input 2:

20

Sample Output 2:

2

3

5

7

11

13

17

19



CodePad

Javascript (node v10.20.0) C (gcc 5.4) Python (3.5) Java (SE 1.8) C++ (g++ 5.4)

```
import java.util.Scanner;  
  
public class Solution {  
  
    public static void main(String[] args) {
```

1

2

3

4

5

6

7

8

```
/* Your class should be named Solution.          9
 *
 * Read input as specified in the question.      10
 *
 * Print output as specified in the question.    11
 */
Scanner s=new Scanner(System.in);           12
int n=s.nextInt();                         13
                                         14
for(int i=2;i<=n;i++)                     15
{
    int c=0;                                16
    for(int j=2;j<=i;j++)
    {
        if(i%j==0)                         17
            c++;                           18
    }
    if(c==1)                               19
    {
        System.out.println(i);             20
    }
}
                                         21
                                         22
                                         23
                                         24
                                         25
                                         26
                                         27
                                         28
                                         29
```

```
30
31
32
33
34
35
36
37
38
39
```

}

}

Assignment

1. Sum or Product
2. Terms of AP
3. Reverse of a number
4. Binary to decimal
5. Decimal to Binary
6. Square Root (Integral)
7. Check Number sequence

Sum or Product

[Send Feedback](#)

Write a program that asks the user for a number N and a choice C. And then give them the possibility to choose between computing the sum and computing the product of all integers in the range 1 to N (both inclusive).

If C is equal to -

1, then print the sum

2, then print the product

Any other number, then print '-1' (without the quotes)

Input format :

Line 1 : Integer N

Line 2 : Choice C

Output Format :

Sum or product according to user's choice

Constraints :

$1 \leq N \leq 12$

Sample Input 1 :

10

1

Sample Output 1 :

55

Sample Input 2 :

10

2

Sample Output 2 :

3628800

Sample Input 3 :

10

4

Sample Output 3 :

-1

```
1 import java.util.*;
2
3 public class Main {
4
5     static int pro(int n){
6         if(n==1 || n==0)
7             return 1;
8         return (n)*pro(n-1);
9     }
}
```

```
10
11 public static void main(String[] args) {
12
13     Scanner s=new Scanner(System.in);
14
15     int n=s.nextInt();
16
17     int c=s.nextInt();
18
19     if(c==1){
20
21         System.out.println((n*(n+1))/2);
22
23     }else{
24
25         System.out.println(pro(n));
26
27     }
28
29
30 }
```

```
}
```

Terms of AP

[Send Feedback](#)

Write a program to print first x terms of the series $3N + 2$ which are not multiples of 4.

Input format :

Integer x

Output format :

Terms of series (separated by space)

Constraints :

$1 \leq x \leq 1,000$

Sample Input 1 :

10

Sample Output 1 :

5 11 14 17 23 26 29 35 38 41

Sample Input 2 :

Sample Output 2 :

5 11 14 17

```
1 import java.util.Scanner;
2
3 public class Main {
4
5     public static void main(String[] args) {
6
7         Scanner s=new Scanner(System.in);
8
9         int n=s.nextInt();
10
11        int re;
12
13        for(int i=1;i<=n;i++){
14
15            re=3*(i)+2;
16
17            if (re%4!=0){
18
19                System.out.print(re+" ");
20
21            }
22
23        }
24
25    }
26
27}
```

```
else{  
    16  
    n=n+1;  
    17  
}  
    18  
}  
    19  
}  
    20  
}  
    21  
}  
    22  
}  
    23
```

Reverse of a number

[Send Feedback](#)

Write a program to generate the reverse of a given number N. Print the corresponding reverse number.

Note : If a number has trailing zeros, then its reverse will not include them. For e.g., reverse of 10400 will be 401 instead of 00401.

Input format :

Integer N

Output format :

Corresponding reverse number

Constraints:

0 <= N < 10^8

Sample Input 1 :

1234

Sample Output 1 :

4321

Sample Input 2 :

1980

Sample Output 2 :

891

```
1 import java.util.Scanner;
2
3 public class Main {
4
5
6     public static void main(String[] args) {
7         // Write your code here
8         Scanner s=new Scanner(System.in);
9         int n=s.nextInt();
10    }
```

```
9  
int re=0;  
10  
while(n>0){  
11  
    re=re*10+n%10;  
12  
    n=n/10;  
13  
}  
14  
System.out.print(re);  
15  
16  
}  
17  
}  
18
```

Binary to decimal

[Send Feedback](#)

Given a binary number as an integer N, convert it into decimal and print.

Input format :

An integer N in the Binary Format

Output format :

Corresponding Decimal number (as integer)

Constraints :

$0 \leq N \leq 10^9$

Sample Input 1 :

1100

Sample Output 1 :

12

Sample Input 2 :

111

Sample Output 2 :

7

```
1 import java.util.*;
2
3 public class Main {
4
5
6 public static void main(String[] args) {
7     // Write your code here
8     Scanner s=new Scanner(System.in);
9
10    int n=s.nextInt();
11    int bv=1;
12
13    int dec=0;
```

```

12
13
14
15
16
17
18
19
20
21
22
23
while(n!=0){
    int rem=n%10;
    dec=dec+(rem*bv);
    bv=bv*2;
    n=n/10;
}
System.out.println(dec);
}
}

```

Decimal to Binary

[Send Feedback](#)

Given a decimal number (integer N), convert it into binary and print.

The binary number should be in the form of an integer.

Note: The given input number could be large, so the corresponding binary number can exceed the integer range. So you may want to take the answer as long for CPP and Java.

Note for C++ coders: Do not use the inbuilt implementation of "pow" function. The implementation of that function is done for 'double's and it may fail when used for 'int's, 'long's, or 'long long's. Implement your own "pow" function to work for non-float data types.

Input format :

Integer N

Output format :

Corresponding Binary number (long)

Constraints :

$0 \leq N \leq 10^5$

Sample Input 1 :

12

Sample Output 1 :

1100

Sample Input 2 :

7

Sample Output 2 :

111

```
import java.util.Scanner;  
public class Main {
```

1

2

3

```
4
public static void main(String[] args) {
5
    // Write your code here
6
7
    Scanner s=new Scanner(System.in);
8
    // Main obj=new Main();
9
10
    int dec=s.nextInt();
11
    // obj.Binary(dec);
12
    if(dec==0)
13
    {
14
        System.out.print("0");
15
        return;
16
    }
17
    int b[]={};
18
    int i=0;
19
    while(dec>0){
20
        b[i++]=dec%2;
21
        dec=dec/2;
22
    }
23
    for(int j=i-1;j>=0;j--) {
24
```

```
System.out.print(b[j]);  
25  
  
}  
26  
  
27  
  
28  
  
29  
}  
30  
}
```

Square Root (Integral)

[Send Feedback](#)

Given a number N, find its square root. You need to find and print only the integral part of square root of N.

For eg. if number given is 18, answer is 4.

Input format :

Integer N

Output Format :

Square root of N (integer part only)

Constraints :

$0 \leq N \leq 10^8$

Sample Input 1 :

10

Sample Output 1 :

3

Sample Input 2 :

4

Sample Output 2 :

2

```
1  
import java.util.Scanner;  
2  
public class Main {  
3  
4  
    public static void main(String[] args) {  
5  
6  
        Scanner s=new Scanner(System.in);  
7  
        int N=s.nextInt();  
8  
        double squareRoot=Math.sqrt(N);  
9  
        System.out.println((int)squareRoot);  
10  
    }  
11}
```

Check Number sequence

[Send Feedback](#)

You are given S, a sequence of n integers i.e. S = s₁, s₂, ..., s_n. Compute if it is possible to split S into two parts : s₁, s₂, ..., s_i and s_{i+1}, s_{i+2},, s_n (0 <= i <= n) in such a way that the first part is strictly decreasing while the second is strictly increasing one.

Note : We say that x is strictly larger than y when x > y.

So, a strictly increasing sequence can be 1 4 8. However, 1 4 4 is NOT a strictly increasing sequence.

That is, in the sequence if numbers are decreasing, they can start increasing at one point. And once the sequence of numbers starts increasing, they cannot decrease at any point further.

Sequence made up of only increasing numbers or only decreasing numbers is a valid sequence. So, in both the cases, print true.

You just need to print true/false. No need to split the sequence.

Input format :

Line 1 : Integer 'n'

Line 2 and Onwards : 'n' integers on 'n' lines(single integer on each line)

Output Format :

"true" or "false" (without quotes)

Constraints :

$1 \leq n \leq 10^7$

Sample Input 1 :

5

9

8

4

5

6

Sample Output 1 :

true

Sample Input 2 :

3

1

2

3

Sample Output 2 :

true

Sample Input 3 :

3

8

7

7

Sample Output 3 :

false

Explanation for Sample Format 3 :

8 7 7 is not strictly decreasing, so output is false.

Sample Input 4 :

6

8

7

6

5

8

2

Sample Output 4 :

false

Explanation for Sample Input 4 :

The series is :

8 7 6 5 8 2

It is strictly decreasing first (8 7 6 5). Then it's strictly increasing (5 8). But then it starts strictly decreasing again (8 2). Therefore, the output for this test case is 'false'

```
import java.util.Scanner;          2
public class Main {               3
    public static void main(String[] args) { 4
        // Write your code here           5
        Scanner s = new Scanner(System.in); 6
        int n = s.nextInt();             7
        if(n==0) {                      8
            System.out.print("false");   9
            return;                     10
        }                                11
        int b = 0;                      12
        int pre = s.nextInt();          13
        int i = 1;                      14
        boolean isDec = true;          15
        int a = 0;                      16
        if(n<=0 || n==1) {             17
            a=1;                         18
        }                                19
        while(i<n) {                  20
            int current = s.nextInt(); 21
            if(current < pre) {         22
```

```

if(pre == current) {
    23
    a=1;
    24
}else if(pre>current)
    25
{
    26
    if(isDec) {
        27
        pre = current;
        28
    }else if(b==1){
        29
            30
            a = 1;
            31
    }else {
        32
        a=1;
        33
    }
    34
}
    35
else if(pre<current)
    36
{
    37
    isDec = false;
    38
    pre = current;
    39
    b=1;
    40
}
    41
i++;
    42
}
    43

```

```
if(a==0) {  
    System.out.print("true");  
}  
else {  
    System.out.print("false");  
}  
}  
}  
}  
}
```

Test-1

And/Or Operator Java

[Send Feedback](#)

Please select the correct statement(s) about && and || operators.

Options

This problem may have one or more correct answers

a && b is true if either a or b is true

(a || b) && c is true if c is true and either a or b is true

a && b is false if both a and b are true

a || b is true if either a or b is true

Correct Answer 2-4

If & Else Java

[Send Feedback](#)

Find the output.

```
int p = 100;  
  
if(p > 20) {  
  
    if(p < 20) {  
  
        System.out.print("coding");  
  
    }  
  
} else {  
  
    System.out.print("ninjas");  
  
}
```

Options

This problem may have one or more correct answers

coding

ninjas

codingninas

No Output — correct

Guess the output

[Send Feedback](#)

```
class Output {
```

```
public static void main(String args[])
{
    int x , y = 1;
    x = 10;
    if (x != 10 && x / 0 == 0)
        System.out.println(y);
    else
        System.out.println(++y);
}
```

Options

This problem has only one correct answer

2 –

1

Runtime error because of division by zero in if condition

None of these

What is the output

[Send Feedback](#)

```
public static void main(String[] args) {
    int a = 10, b = 20, c = 100;
```

```
if(a <= b && b != 20) {  
  
    System.out.println("hello");  
  
}  
  
else if(c >= a && c >= b) {  
  
    System.out.println("hi");  
  
}  
  
else {  
  
    System.out.println("hey");  
  
}  
  
}
```

Answer

Correct Answer hi

Solution Description

(a <= b) evaluates to true, but (b != 20) evaluates to false. For AND operator ("&&"), all the condition must be true. So we'll move to else if condition which evaluates to be true as both conditions (c >= a and c >= b) are true. Hence, "hi" will be printed.

What is the output

[Send Feedback](#)

```
public static void main(String[] args) {  
  
    int a = 10, b = 20, c = 100;  
  
    if(a <= b || c <= b) {  
  
        System.out.println("hello");  
  
    }  
  
    else if(a <= b || a <= c) {  
  
        System.out.println("hi");  
  
    }  
}
```

```
    }  
    else {  
        System.out.println("hey");  
    }  
}
```

Solution Description

####In if condition, we are using logical OR operator ("||"). So if even one condition is true, final answer will be true.

Output Question Java

[Send Feedback](#)

Print Output -

```
int a = 6;  
int b = 12;  
while (a < b) {  
    System.out.print("In the loop");  
    a += 2;  
    b -= 2;  
}
```

Options

This problem has only one correct answer

In the loop [4 times]

In the loop [1 time]

In the loop [2 times] –

In the loop [3 times]

Correct Answer

Order the code Java

[Send Feedback](#)

Write the correct order(s) of statements.

We want to print "Coding Ninjas" 10 times.

There can be multiple answers.

```
1. while(x <= 10) {  
2.     int x = 1;  
3.     x += 1;  
4.     System.out.println("Coding Ninjas");  
5. }
```

Options

This problem may have one or more correct answers

2 3 1 4 5

2 1 3 4 5

2 1 4 3 5

1 2 4 3 5

Correct Answer 2 3

Predict the output Java

[Send Feedback](#)

Figure out the output

```
int x = 10;
```

```
while(x >= 0) {
```

```
    x = x - 1;
```

```
    System.out.print(x);
```

```
    X--;  
}  
  
}
```

Options

This problem may have one or more correct answers

97531

97531-1 –

10864

10987654321

Palindrome number

[Send Feedback](#)

Write a program to determine if given number is palindrome or not. Print true if it is palindrome, false otherwise.

Palindrome are the numbers for which reverse is exactly same as the original one.

For eg. 121

Sample Input 1 :

121

Sample Output 1 :

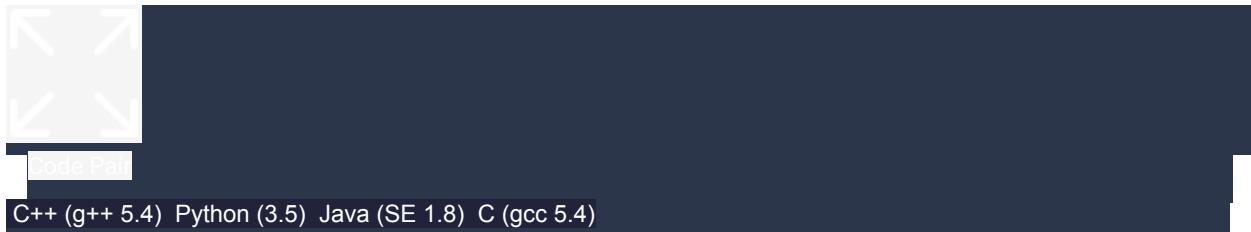
true

Sample Input 2 :

1032

Sample Output 2 :

false



```
1 import java.util.Scanner;
2
3 public class Main {
4
5     public static void main(String[] args) {
6         // Write your code here
7
8         Scanner s=new Scanner(System.in);
9
10        int n=s.nextInt();
11
12        int r,sum=0,temp;
13
14        temp=n;
15
16        while(n>0){
17
18            r=n%10; //getting remainder
19
20            sum=(sum*10)+r;
21
22            n=n/10;
23
24        }
25
26        System.out.println(sum);
27    }
28}
```

```
    }  
    17  
  
    if(temp==sum)  
    18  
        System.out.println("true");  
    19  
    else  
    20  
        System.out.println("false");  
    21  
  
    }  
    22  
}  
  23  
}  
  24
```

Check AP

[Send Feedback](#)

Given input consists of n numbers. Check whether those n numbers form an arithmetic progression or not. Print true or false.

Input format :

Line 1 : n

Line 2 : n numbers

Sample Input 1 :

6

2 6 10 14 18 22

Sample Output 1 :

true

Sample Input 2 :

6

2 6 10 15 19 23

Sample Output 2 :

false

The screenshot shows a Java development environment with the following details:

- Test 1:** Score 480/600, Submitted on Jul 27, 2022, 12:08:06 PM.
- Code:**

```
1 import java.util.Scanner;
2
3 public class Main {
4
5     public static void main(String[] args) {
6         Scanner s = new Scanner(System.in);
7
8         int n = s.nextInt();
9         int prev = s.nextInt();
10        int current = s.nextInt();
11        int count = 3; // Which number has to be taken now
12
13        int d = current - prev;
14        prev = current;
15
16        while(count <= n) {
17            current = s.nextInt();
18            int tempD = current - prev;
19            if(tempD != d) {
20                System.out.println("false");
21                return;
22            }
23        }
24
25        System.out.println("true");
26    }
27}
```
- Output:** true
- Test Cases:** 120/120
- Buttons:** PREVIOUS, NEXT, CUSTOM INPUT, SUBMIT SOLUTION.

The screenshot shows a Java development environment with multiple tabs open. The main tab displays Java code for calculating the Levenshtein distance between two strings. The code uses a dynamic programming approach with a 2D array. It includes imports for `java.util.Scanner` and `java.util.Arrays`. The code is annotated with comments explaining the logic, such as 'Which number has to be taken now?' and 'What is the output?'. The interface includes a sidebar with various coding challenges and a status bar at the bottom.

```
1 import java.util.Scanner;
2 import java.util.Arrays;
3
4 public class Main {
5     public static void main(String[] args) {
6         Scanner scn = new Scanner(System.in);
7         scn.nextInt();
8
9         int prev = scn.nextInt();
10        int current = scn.nextInt();
11        int count = 3; // Which number has to be taken now?
12
13        int d = current - prev;
14        prev = current;
15
16        while(count <= n) {
17            current = scn.nextInt();
18            int tempD = current - prev;
19            if(tempD != d) {
20                System.out.println("false");
21                return;
22            }
23            count++;
24            prev = current;
25        }
26        System.out.println("true");
27    }
28}
29
```

Number Star pattern 1

[Send Feedback](#)

Print the following pattern for given number of rows.

Input format :

Integer N (Total number of rows)

Output Format :

Pattern in N lines

Sample Input :

5

Sample Output :

5432*

543*1

54*21

5*321

*4321



Python (3.5) Java (SE 1.8) C++ (g++ 5.4)

```
import java.util.Scanner;  
public class runner {  
    public static void main(String[] args) {  
        // Write your code here  
        Scanner s=new Scanner(System.in);  
        int n=s.nextInt();  
        for(int i=1;i<=n;i++){  
            for(int j=n;j>=1;j--){  
                if(j!=i)
```

```
13 System.out.print(j);  
14  
15     else  
16         System.out.print("*");  
17     }  
18     System.out.println(" ");  
19 }  
20  
21 }  
22 }
```

Lec-8:- Functions & Scope [11-Videos 21-Problems]

Lecture

1. Calculating NcR
2. Predict the output
3. What and Why of Functions ?
4. Return type
5. Return type

-
- 6. Fill the output
 - 7. Find the output
 - 8. Writing More Functions
 - 9. Return type
 - 10. Check the error
 - 11. Functions with void return type
 - 12. Fahrenheit to Celsius Table
 - 13. Fibonacci Number
 - 14. How function calling works
 - 15. Check for error
 - 16. Predict the output
 - 17. Pass by value
 - 18. Check for error
 - 19. Predict the output
 - 20. Updating the value
 - 21. Fill the output
 - 22. Fill the output
 - 23. Fill the output
 - 24. Scope of Variables
 - 25. Check the error
 - 26. Check the error
 - 27. Check Prime
 - 28. Check Prime
 - 29. Running it on Codezen
 - 30. Function Overloading
 - 31. Predict the output
 - 32. Predict the output
 - 33. Functions

Predict the output

[Send Feedback](#)

Predict the output of the following code:

```
public static void main (String[] args) {  
    int n=10,r=6;  
    int factn=1,factr=1,factnr=1;  
    for(int i=2;i<=n;i++)  
    {
```

```
factn*=i;  
if(i<=r)  
    factr*=i;  
if(i<=n-r)  
    factnr*=i;  
}  
int ncr=factn/(factr*factnr);  
System.out.print(ncr);  
}
```

info You have max 2 attempts to score in this question.

Attempts left:

1/2

Options

This problem has only one correct answer

252

200

210

762

Correct Answer

Solution Description

factn=3628800.

factr=720

factnr=24

ncr=3628800/(720 * 24)

=210

Lecture 8 : Functions & Scope
Deadline: Jul 30, 2022, 11:59 PM

What is the return type of a method that does not return any value?

Options:

- int
- double
- char
- void ✓

Correct Answer: void

Solution Description: The functions which doesn't return any value, their return type is "void".

Lecture 8 : Functions & Scope
Deadline: Jul 30, 2022, 11:59 PM

Let's say the problem is - You will be given two numbers[both integers] and you need to return their sum.

For this problem, what should be the return type of function?

Options:

- int ✓
- boolean
- char
- void

Correct Answer: int

Solution Description: We need to return the sum of two integers, which is again an integer. So the sum that we want to return is of type "int". Hence return type should be "int" for this function.

Lecture 8 : Functions & Scope
Deadline
Jul 30, 2022, 11:59 PM

Fill the output
Send Feedback

What will be the output of the following code ?

```
public static void func(int a, int b){  
    System.out.println(a + b);  
}  
  
public static void main(String[] args) {  
    int a = 7;  
    func(a, 12);  
}
```

Answer
19 ✓

Correct Answer

PREVIOUS NEXT SUBMIT

Problem Result

You have max 2 attempts to score in this question.

This problem has only one correct answer

Attempts left: 0/2

Options

5 15
 Compilation Error ✓
 5 0
 None of these

Correct Answer

PREVIOUS NEXT SUBMIT

Lecture 8 : Functions & Scope
Deadline Jul 30, 2022, 11:59 PM

Return type

What should be return type of the following function:

```
public static _____ division(int a,int b)
{
    float c=a/b;
    return c;
}
```

Options

This problem has only one correct answer.

int

float ✓

long

Solution Description

As we need to return a decimal value we can use float or double.

Lecture 8 : Functions & Scope
Deadline Jul 30, 2022, 11:59 PM

Check the error

Would the following code generate an error:

```
public static double add(int a,int b)
{
    float c=a+b;
    return c;
}
public static void main (String[] args) {
    System.out.print(add(10,3));
}
```

Options

This problem has only one correct answer.

Yes

No ✓

Solution Description

There is no problem in converting float to double.

Fahrenheit to Celsius Table

[Send Feedback](#)

Given three values - Start Fahrenheit Value (S), End Fahrenheit value (E) and Step Size (W), you need to convert all Fahrenheit values from Start to End at the gap of W, into their corresponding Celsius values and print the table.

Input Format :

3 integers - S, E and W respectively

Output Format :

Fahrenheit to Celsius conversion table. One line for every Fahrenheit and Celsius Fahrenheit value. Fahrenheit value and its corresponding Celsius value should be separate by tab ("\t")

Constraints :

$0 \leq S \leq 1000$

$0 \leq E \leq 1000$

$0 \leq W \leq 1000$

Sample Input 1:

0

100

20

Sample Output 1:

0 -17

20 -6

40 4

60 15

80 26

100 37

Sample Input 2:

120

200

40

Sample Output 2:

120 48

160 71

200 93

Explanation for Sample Output 2 :

Start value is 120, end value is 200 and step size is 40. Therefore, the values we need to convert are 120, $120 + 40 = 160$, and $160 + 40 = 200$.

The formula for converting Fahrenheit to Celsius is:

$$\text{Celsius Value} = (5/9) * (\text{Fahrenheit Value} - 32)$$

Plugging 120 into the formula, the celsius value will be $(5 / 9) * (120 - 32) \Rightarrow (5 / 9) * 88 \Rightarrow (5 * 88) / 9 \Rightarrow 440 / 9 \Rightarrow 48.88$

But we'll only print 48 because we are only interested in the integral part of the value.



Your Code

Main Code

Code Pair

Javascript (node v10.20.0) C (gcc 5.4) Kotlin (1.3.71) C++ (g++ 5.4) Python (3.5) Java (SE 1.8)

```

1 import java.util.*;
2
3 public class Solution {
4
5     public static void printFahrenheitTable(int start, int end, int step) {
6         int i,c;
7         for(i=start;i<=end;i=i+step){
8             c=((i-32)*5)/9;
9             System.out.println(i+"\t"+c);
10        }
11    }
12 }
13

```

Fibonacci Number

[Send Feedback](#)

Given a number N, figure out if it is a member of fibonacci series or not. Return true if the number is member of fibonacci series else false.

Fibonacci Series is defined by the recurrence

$$F(n) = F(n-1) + F(n-2)$$

where $F(0) = 0$ and $F(1) = 1$

Input Format :

Integer N

Output Format :

true or false

Constraints :

$0 \leq n \leq 10^4$

Sample Input 1 :

5

Sample Output 1 :

true

Sample Input 2 :

14

Sample Output 2 :

false



Your Code

Main Code

Code Pair

Javascript (node v10.20.0) C (gcc 5.4) Kotlin (1.3.71) Java (SE 1.8) Python (3.5) C++ (g++ 5.4)

```
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
public class Solution {
    public static boolean checkMember(int n){
        int a = 0;
        int b = 1;
        if (n==a || n==b) return true;
        int c = a+b;
        while(c<=n)
        {
            if(c == n) return true;
            a = b;
            b = c;
            c = a + b;
        }
        return false;
    }
}
```

20

}

21

22

Lecture 8 : Functions & Scope
Deadline
Jul 30, 2022, 11:59 PM

How function calling works • 13:41

Check for error • 30.0/30

Predict the output • 30.0/30

Pass by value • 10:02

Check for error • 30.0/30

Predict the output • 30.0/30

Updating the value • 09:32

Check for error

Send Feedback

Will the given code generate any error:

```
public static void func1(int a)
{
    System.out.print("a");
}
public static void main (String[] args) {
    func1(2.5);
}
```

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer

Attempts left: 0/2

Yes ✓

No

Solution Description

The datatype of argument in function is int whereas we have passed a double value. So the code would generate an error.

< PREVIOUS > NEXT

SUBMIT

Type here to search

23°C Haze

06:42 14-08-2022

Lecture 8 : Functions & Scope
Deadline: Jul 30, 2022, 11:59 PM

13:41

Check for error • 30.0/30
Predict the output • 30.0/30
Pass by value • 10:02
Check for error • 30.0/30
Predict the output • 30.0/30
Updating the value • 03:32
Fill the output • 30.0/30

Predict the output

What will be the output of the following code?

```
public static void func2(){  
    System.out.print("#");  
}  
public static void func1()  
{  
    System.out.print("*");  
    func2();  
}  
public static void main (String[] args) {  
    func2();  
    func1();  
}
```

Options: #*, #*#, *#*, *# Attempt left: 1/2

This problem has only one correct answer.

#*

#*#

##*

*#

Correct Answer:

Solution Description

First we call func2, and # is printed.
Then we call func1, which first prints * and then calls func2, which prints #.
So the output is *##.

PREVIOUS NEXT SUBMIT

Lecture 8 : Functions & Scope
Deadline: Jul 30, 2022, 11:59 PM

10:02

Pass by value • 10:02
Check for error • 30.0/30
Predict the output • 30.0/30
Updating the value • 03:32
Fill the output • 30.0/30
Fill the output • 30.0/30
Fill the output • 30.0/30

Check for error

Will the given code generate any error?

```
public static void func1(int a)  
{  
    System.out.print("a");  
}  
public static void main (String[] args) {  
    func1(2.5);  
}
```

Options: Yes ✓ Attempt left: 1/2

This problem has only one correct answer.

Yes ✓

No

Correct Answer:

Solution Description

The datatype of argument in function is int whereas we have passed a double value. So the code would generate an error.

PREVIOUS NEXT SUBMIT

Lecture 8 : Functions & Scope

Deadline: Jul 30, 2022, 11:59 PM

10:02

Check for error • 30.0/30

Predict the output • 30.0/30

Updating the value • 03:32

Fill the output • 30.0/30

Fill the output • 30.0/30

Fill the output • 30.0/30

Scope of Variables • 09:09

Predict the output

Send Feedback

What will be the output of the following code?

```
public static void func1(int a,int b)
{
    int ans=1;
    for(int i=0;i<b;i++)
    {
        ans*=a;
    }
    System.out.println(ans);
}
public static void main (String[] args) {
    func1(2,5);
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Attempts left: 1/2

64

10

32 ✓

Error

Correct Answer

Solution Description

The loop would execute 5 times.
ans=2 * 2 * 2 * 2 * 2
ans=32.

PREVIOUS NEXT SUBMIT

Lecture 8 : Functions & Scope

Deadline: Jul 30, 2022, 11:59 PM

Updating the value • 03:32

Fill the output • 30.0/30

Fill the output • 30.0/30

Fill the output • 30.0/30

Scope of Variables • 09:09

Check the error • 30.0/30

Check the error • 30.0/30

Fill the output

Send Feedback

What will be the output of the following code ?

```
public static void doubleValue(int a) {
    a = a * 2;
}
public static void main(String[] args) {
    int a = 8;
    doubleValue(a);
    System.out.println(a);
}
```

Answer

8

Correct Answer

PREVIOUS NEXT SUBMIT

Lecture 8 : Functions & Scope
Deadline
Jul 30, 2022, 11:59 PM

Fill the output
Send Feedback

What will be the output of the following code ?

```
public static int func(int a){  
    a += 10;  
    return a;  
}  
  
public static void main(String[] args){  
    int a = 5;  
    func(a);  
    System.out.println(a);  
}
```

Answer
5 ✓

Correct Answer.

Lecture 8 : Functions & Scope
Deadline
Jul 30, 2022, 11:59 PM

Fill the output
Send Feedback

What will be the output of the following code ?

```
public static int square(int a){  
    int ans = a * a;  
    return ans;  
}  
  
public static void main(String[] args){  
    int a = 4;  
    a = square(a);  
    System.out.println(a);  
}
```

Answer
16 ✓

Correct Answer.

This screenshot shows a Java course problem page from Coding Ninjas. The main content area displays a "Check the error" challenge. It asks if the provided code will generate any errors. The code is as follows:

```
public class Main {  
    public static void func(int a) {  
        int b = a;  
        b = b + 10;  
    }  
  
    public static void main(String[] args) {  
        int a = 10;  
        func(a);  
        System.out.println(b);  
    }  
}
```

The right panel contains a message about attempting the question, options for "Yes" or "No", and a "Correct Answer" section which states: "Code will generate error as we are trying to print value of variable b in main and there isn't any variable b created or accessible in main. Variable b in the code is created inside function func, and is local to this function and not accessible outside it." A "SUBMIT" button is at the bottom.

This screenshot is identical to the one above, showing the same Java course problem page on Coding Ninjas. It displays the "Check the error" challenge with the same code and instructions. The right panel also contains the same message about attempting the question, options for "Yes" or "No", and the same "Correct Answer" explanation. A "SUBMIT" button is at the bottom.

Lecture 8 : Functions & Scope
Deadline Jul 30, 2022, 11:59 PM

Check Prime

Send Feedback

What will be the output of the following code?

```
public static boolean isPrime(int x)
{
    for(int i=2;i<x/2;i++)
    {
        if(x%i==0)
            return false;
    }
    return true;
}

public static void main (String[] args) {
    System.out.print(isPrime(47));
}
```

< PREVIOUS > NEXT

ASK/VIEW DOUBT

You have max 2 attempts to score in this question.

Options Attempts left: 1/2

This problem has only one correct answer

true ✓
 false
 error

Correct Answer

Solution Description

The loop would execute for i=2 to 22. And 47 is not divisible by any of them.

Lecture 8 : Functions & Scope
Deadline Jul 30, 2022, 11:59 PM

Predict the output

Send Feedback

What will be the output of the following code?

```
public static int sum(int a,int b)
{
    System.out.print("int sum ");
    return a+b;
}

public static long sum(long a,long b)
{
    System.out.print("long sum ");
    return a+b;
}

public static void main (String[] args) {
    int a=4;
    int b=5;
    System.out.print(sum(a,b));
}
```

< PREVIOUS > NEXT

ASK/VIEW DOUBT

You have max 2 attempts to score in this question.

Options Attempts left: 1/2

This problem has only one correct answer

int sum 9 ✓
 long sum 0
 error
 int sum long sum 9

Correct Answer

Solution Description

As both the datatypes are int So first function would be called.

Lecture 8 : Functions & Scope

Deadline: Jul 30, 2022, 11:59 PM

Predict the output

What will be the output of the following code?

```
public static int sum(int a,int b)
{
    System.out.print("int sum ");
    return a+b;
}
public static double sum(double a,double b)
{
    System.out.print("float sum ");
    return a+b;
}
public static void main (String[] args)
{
    System.out.print(sum(5,4));
    System.out.print(sum(5.0,4.0));
}
```

Options

This problem has only one correct answer.

Attempts left: 1/2

- int.sum 9
- int.sum 9float.sum 9
- int.sum 9float.sum 9.0 ✓
- error

Correct Answer

Solution Description

sum(5,4) would call the 1st Function and sum (5.0,4.0) would call 2nd Function.

Test-2

Test 2

Score: 400/560

Submitted on Jul 27, 2022, 2:06:25 PM

Predict the output

What would be the output of the following code?

```
public static void main (String[] args) {
    short i;
    for(i=1;i>0;i++)
    {
    }
    System.out.print();
}
```

Options

This problem has only one correct answer.

- Infinite loop so the print statement is never reached.
- 32768 ✓
- 1

Correct Answer

Solution Description

Range of short is -32,768 to 32,767.
The loop condition satisfies for i=1 to i=32,767. When i is equal to 32,767 and we add 1 i becomes -32,768. The for loop breaks.

The screenshot shows a computer screen with a browser window open to a Coding Ninjas test page. The title bar says "Coding Ninjas" and "Java Course-1 - Google Docs". The main content area displays a test titled "Test 2" with a score of 400/960, submitted on Jul 27, 2022, at 2:06:25 PM. On the left, there's a sidebar with various test questions and their scores. The current question is "Predict the output" with a score of 20.0/20. It asks: "What would be the output of the following code?" Below the question is a code snippet:

```
public static void main(String[] args)
{
    int i = 0;
    for (System.out.print("Hi"); i < 1; i++)
        System.out.print("Ninjas");
}
```

On the right, there's an "Options" section with radio buttons for "Hi", "HiNinjas", "Compile time Error", and "Ninjas". The "HiNinjas" option is selected. Below it is a "Correct Answer" section and a "Solution Description" section.

This screenshot shows the same Java course test interface, but the current question is "Is there any error?" with a score of 20.0/20. It asks: "Is there any compilation error in the given code?" Below the question is a code snippet:

```
public static void main(String args[])
{
    for(int i=1; i<=10; i++)
        System.out.print(i);
}
```

On the right, there's an "Options" section with radio buttons for "YES" and "NO". The "YES" option is selected. Below it is a "Correct Answer" section and a "Solution Description" section.

The screenshot shows a web browser window with the Coding Ninja platform. The title bar says "Coding Ninja" and "Java Course-1 - Google Docs". The main content area displays a test titled "Test 2" with a score of 400/960, submitted on Jul 27, 2022, at 2:06:25 PM. On the left, there's a sidebar with various topics like "Predict the output", "Is there any error?", etc. In the center, a "Problem" section titled "Find error in code" asks: "Which line of the following code would give an error?". Below is the code:

```
public static void main(String[] args){  
    int a=5,b=4;  
    System.out.println(a*=b);/line 1  
    System.out.println(a==b);/line 2  
    System.out.println(a==b);/line 3  
}
```

The "Options" section says "This problem has only one correct answer" and lists three choices: "Line 1" (radio button), "Line 2" (radio button checked with a green checkmark), "Line 3" (radio button), and "No error" (radio button). The "Solution Description" section explains that `a=b` gives us a boolean value, while `a==b` means int = boolean. It notes that this would give an error because of type mismatch from boolean to int.

This screenshot shows the same test environment after an answer has been submitted. The "Options" section now says "This problem may have one or more correct answers". The previously selected option "Line 2" now has a red error icon next to it. The "Correct Answer" section is visible. The "Solution Description" section remains the same, stating that only Statement 2 is false because left shift operator is equivalent to multiplication by 2.

Number Star Pattern

[Send Feedback](#)

Print the following pattern for given number of rows.

Input format :

Line 1 : N (Total number of rows)

Sample Input :

5

Sample Output :

1234554321

1234**4321

123****321

12*****21

1*****1



Code Pair

C (gcc 5.4) Python (3.5) Java (SE 1.8) C++ (g++ 5.4)

```
1 import java.util.*;
2
3 public class Solution {
4
5
6     Scanner s=new Scanner(System.in);
7
8     int lines=s.nextInt();
9
10    int i,j;
```

```

9
int space=0;
10
for(i=0;i<lines;i++){// this loop is used to print lines
11
    for(j=1;j<=space;j++){// this loop is used to print space in a line
12
        System.out.print(" ");
13
    }
14
    for(j=1;j<=lines;j++){// this loop is used to print numbers in a
line
15
        if(j<=(lines-i))
16
            System.out.print(j);
17
        else
18
            System.out.print("*");
19
    }
20
    j--;
21
}
22
while(j>0){// this loop is used to print numbers in a line
23
    if(j>lines-i)
24
        System.out.print("*");
25
    else
26
        System.out.print(j);
27
    j--;
28
}
29
if((lines-i)>9)// this loop is used to increment space

```

```
    space=space+1;          30
    System.out.println(" "); 31
}
}                         32
}                         33
}                         34
}                         35
```

Probability

[Send Feedback](#)

An urn contains 8 balls : 4 red , 2 blue and 2 green. Now n balls are drawn out of the urn. Calculate the probability that out of n drawn balls exactly x balls are red.

Find your answer multiplied by 100 and return the integer part.

All required values for computation will be in integer range.

x is always less than equal to 4 and x is always less than equal to n.

Input format :

Two spaced integers : n and x

Output format :

Integer part of (Probability * 100).

Sample Input 1 :

3 1

Sample Output 1:

42



Your Code
Main Code
Code Pair

Python (3.5) C++ (g++ 5.4) Java (SE 1.8)

```
1 public class Solution {  
2  
3     public static int probability(int n,int x){  
4  
5         /* Your class should be named Solution  
6          * Don't write main().  
7          * Don't read input, it is passed as function argument.  
8          * Return output and don't print it.  
9          * Taking input and printing output is handled automatically.  
10     */  
11  
12     int a=n+x;  
13     int b=n-x;  
14  
15     return "a"+b"  
16 }
```

}

17

}

18

19

20

The screenshot shows a Java development environment with the following code:

```
public class Solution {
    public static int fact(int number) {
        int ans=1;
        for(int i=1;i<number;i++)
            ans*=i;
        return ans;
    }
    public static int ncr(int num,int r)
    {
        int ans = (fact(num)/fact(num-r))/fact(r);
        return ans;
    }
    public static int probability(int n ,int x)
    {
        int ans=ncr(4,x)*ncr(4,n-x);
        float probab=ans*1.0f/ncr(8,n);
        return (int)(probab*100);
    }
}
```

The code calculates the probability of getting exactly x heads in n coin flips. It uses combinations (ncr) to calculate the number of ways to get x heads from n flips, and then divides by the total number of outcomes ($ncr(8,n)$) to get the probability.

Maximum number

[Send Feedback](#)

We are given a 4 digit number using digits 1 to 9. What is the maximum 3 digit number that we can make by removing one digit from the given integer.

Input Format :

A 4 digit number

Output Format :

A 3 digit number

Sample Input :

5438

Sample Output :

548

Explanation :

1. If we remove 5, the new number is 438.
2. If we remove 4, the new number is 538.
3. If we remove 3, the new number is 548.
4. If we remove 8, the new number is 543.

Out of the 4 cases removing 3 gives us the maximum 3 digit number i.e 548



The screenshot shows a code editor with a dark theme. On the left, there are four tabs: 'Your Code' (highlighted in red), 'Main Code' (highlighted in green), 'Code Pair' (highlighted in blue), and 'C++ (g++ 5.4) Python (3.5) Java (SE 1.8)' (highlighted in orange). The main area contains the following Java code:

```
import java.util.Scanner;

public class Solution {
    static int maxnumber(int n, int k)
}
```

On the right side of the code editor, there are four numbered vertical bars (1, 2, 3, 4) corresponding to the lines of code.

```
5
{
6    for (int j = 0; j < k; j++) {
7
8        int ans = 0;
9
10       int i = 1;
11
12       while (n / i > 0) {
13
14           int temp = (n / (i * 10)) * i + (n % i);
15
16           i *= 10;
17
18           ans = Math.max(ans, temp);
19
20       }
21
22
23   public static void main(String[] args)
24 {
25     Scanner s=new Scanner(System.in);
26
27     int n = s.nextInt();
28
29     int k = 1;
```

Lec-10:-Arrays [11-Videos 22-Problems]

Arrays—C:\Users\n1606\Videos\RecForth

1. Initialization:
 - a. `int[] arr=new int[10];` === `int arr[]={new int [10];}`
 - b. `size=n[0 - n-1]`
 - c. Adding elements in array[[arr.append(i)]]
 2. Introduction to Arrays
 3. How To Declare Arrays
 4. Correct Statement
 - a. Figure out the correct statement for the code below ?
 - b. `int[] arr = new int[5];`
 - c. `arr = new int[6];`
 - d. **Options**
 - e. This problem has only one correct answer
 - f. The code has a compile error because the variable arr cannot be changed once it is assigned.
 - g. The code will compile and run fine. The second line assigns a new array to arr.
 - h. The code has compile errors because we cannot assign a different size array to arr.
 - i. None of these
 5. Predict The Output
 - a. What will be the output of the following code ?

- b. `int arr[] = new int[5];`
- c. `System.out.println(arr[0]);`

d. **Options**

- e. This problem has only one correct answer
- f. Garbage value
- g. `ArrayIndexOutOfBoundsException`
- h. 0
- i. Correct Answer

j. **Solution Description**

- k. ##### Whenever an integer array is created, all elements are initialised to 0.

6. **Predict The Output**

- a. What will be the output of the following code ?

- b. `char chArray[] = new char[15];`
- c. `System.out.println(chArray[15]);`

d. **Options**

- e. This problem has only one correct answer
- f. Garbage value
- g. `ArrayIndexOutOfBoundsException`
- h. 0
- i. Correct Answer

j. **Solution Description**

- k. ##### For an array of size n, indexes of the array range from 0 to (n - 1). So here for array of size 15, valid indices are from 0 to 14. This `chArray[15]` is trying to access an invalid index which gives `ArrayIndexOutOfBoundsException`.

7. **Predict The Output**

- a. What will be the output of the following code ?

- b. `boolean arr[] = new boolean[5];`
- c. `System.out.println(arr[0]);`

d. **Answer**

- e. Type here
- f. Correct Answer

g. **Solution Description**

- h. ##### Whenever an boolean array is created, all elements are initialised to false.

8. Predict The Output

- a. What will be the output ?
- b. public class Main {
- c. public static void main(String args[]){
- d. int arr[] = new int[5];
- e. arr[1] = 10;
- f. arr = new int[2];
- g. System.out.println(arr[0]);
- h. }
- i. }

j. Options

- k. This problem has only one correct answer
- l. 10
- m. 0
- n. Compilation Error
- o. Correct Answer

p. Solution Description

- q. #####arr initially refers to an array of size 5, line 2 assigns 10 to arr[1] but in line 3 arr is made to point to a new array of size 2. By default all elements of integer array are initialized to 0. Hence line 4 will print 0.

9. Taking Input And Printing Array

10. Moving Into Functions

11. Length Of Array

a. Length Of Array

- b. Send Feedback
- c. Which of the options can be used to get the size of an array?

d. _____

e. *arr is the array.

f. **info** You have max 2 attempts to score in this question.

g. Attempts left:

h. 1/2

i. Options

- j. This problem has only one correct answer
- k. arr.size
- l. arr.length

- m. lengthof(arr)
- n. None of these
- o. Correct Answer

12. Return Array Sum-code

a. **Return Array Sum**

- b. Send Feedback
- c. Given an array/list(ARR) of length N, you need to find and return the sum of all the elements in the array/list.
- d. **Input Format :**
- e. The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.
- f.
- g. The first line of each test case or query contains an integer 'N' representing the size of the array/list.
- h.
- i. Second line contains 'N' single space separated integers representing the elements in the array/list.
- j.

k. **Output Format :**

- l. For each test case, print the sum of the numbers in the array/list.
- m.
- n. Output for every test case will be printed in a separate line.
- o.

p. **Constraints :**

- q. $1 \leq t \leq 10^2$
- r. $0 \leq N \leq 10^5$
- s.
- t. Time Limit: 1sec
- u.

v. **Sample Input 1:**

- w. 1
- x. 3
- y. 9 8 9
- z.

aa. **Sample Output 1:**

- bb. 26

cc.

dd. Sample Input 2:

ee. 2

ff. 5

gg. 1 2 3 4 5

hh. 3

ii. 10 20 30

jj.

kk. Sample Output 2:

ll. 15

mm. 60

```
import java.util.Scanner;

public class Solution {

    public static int sum(int[] arr)
    {
        //Your code goes here

        int n=arr.length;
        int sum=0;
        for (int i=0;i<n;i++){
            sum+=arr[i];
        }
        return sum;
    }
}
```

```

1+ import java.util.Scanner;
2+ public class Solution {
3+
4+
5+     public static int sum(int[] arr)
6+     {
7+         //Your code goes here
8+         int n=arr.length;
9+         int sum=0;
10+        for (int i=0;i<n;i++)
11+        {
12+            sum+=arr[i];
13+        }
14+        return sum;
15+    }
16+ }

```

13. Finding Largest Element

14. Linear Search

- Linear Search**
- [Send Feedback](#)
- You have been given a random integer array/list(ARR) of size N, and an integer X. You need to search for the integer X in the given array/list using 'Linear Search'.
- You have been required to return the index at which X is present in the array/list. If X has multiple occurrences in the array/list, then you need to return the index at which the first occurrence of X would be encountered. In case X is not present in the array/list, then return -1.
- 'Linear search' is a method for finding an element within an array/list. It sequentially checks each element of the array/list until a match is found or the whole array/list has been searched.
- Input format :**
- The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.
-

- i. First line of each test case or query contains an integer 'N' representing the size of the array/list.
- j.
- k. Second line contains 'N' single space separated integers representing the elements in the array/list.
- l.
- m. Third line contains the value of X(integer to be searched in the given array/list)
- n.
- o. Output format :**
- p. For each test case, print the index at which X is present or -1, otherwise.
- q.
- r. Output for every test case will be printed in a separate line.
- s.
- t. Constraints :**
- u. $1 \leq t \leq 10^2$
- v. $0 \leq N \leq 10^5$
- w. $-2^{31} \leq X \leq (2^{31}) - 1$
- x. Time Limit: 1 sec
- y.
- z. Sample Input 1:**
 - aa. 1
 - bb. 7
 - cc. 2 1 3 4 1 3 6 28
 - dd. 3
 - ee.
- ff. Sample Output 1:**
 - gg. 4
 - hh.
- ii. Sample Input 2:**
 - jj. 2
 - kk. 7
 - ll. 2 1 3 4 1 3 6 28
 - mm. 9
 - nn. 5
 - oo. 7 8 5 9 5
 - pp. 5
 - qq.
- rr. Sample Output 2:**
 - ss. -1

tt. 2

Main Code:

```
import java.io.BufferedReader;  
  
import java.io.IOException;  
  
import java.io.InputStreamReader;  
  
public class Runner {
```

```
static BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
```

```
public static int[] takeInput() throws IOException {  
  
    int size = Integer.parseInt(br.readLine().trim());  
  
    int[] input = new int[size];  
  
    if (size == 0) {  
  
        return input;  
  
    }  
}
```

```
String[] strNums;
```

```
strNums = br.readLine().split("\\s");
```

```
for (int i = 0; i < size; ++i) {  
    input[i] = Integer.parseInt(strNums[i]);  
}  
  
return input;  
}  
  
public static void main(String[] args) throws NumberFormatException, IOException {  
    int t = Integer.parseInt(br.readLine().trim());  
  
    while(t > 0) {  
        int[] input = takeInput();  
  
        int val = Integer.parseInt(br.readLine().trim());  
  
        System.out.println(Solution.linearSearch(input, val));  
  
        t -= 1;  
    }  
}
```

```
    }

}

}

import java.util.Scanner;

public class Solution {

    public static int linearSearch(int arr[], int x) {

        //Your code goes here

        for(int i=0;i<arr.length;i++) {

            if(arr[i]==x)

                return i;

        }

        return -1;
    }

    public static void main(String [] args){

        Scanner s=new Scanner(System.in);

        int n=s.nextInt();

        int size=s.nextInt();
    }
}
```



```
int[] arr=new int[size];  
  
for(int i=0;i<size;i++){  
  
    arr[i]=s.nextInt();  
  
}  
  
int x=s.nextInt();  
  
int res=linearSearch(arr,x);  
  
System.out.println(res);  
  
}  
  
}
```

```

1+ import java.util.Scanner;
2+ public class Solution {
3+
4+     public static int linearSearch(int arr[], int x) {
5+         //Your code goes here
6+         for(int i=0;i<arr.length;i++) {
7+             if(arr[i]==x)
8+                 return i;
9+         }
10+        return -1;
11+    }
12+
13+    public static void main(String [] args){
14+        Scanner s=new Scanner(System.in);
15+        int n=s.nextInt();
16+        int size=s.nextInt();
17+
18+        int[] arr=new int[size];
19+        for(int i=0;i<size;i++){
20+
21+            arr[i]=s.nextInt();
22+        }
23+        int x=s.nextInt();
24+        int res=linearSearch(arr,x);
25+        System.out.println(res);
26+
27+
28+    }
29+
}

```

The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.

Input format:

The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.

Output format:

The output of each test case will be the index at which the integer 'x' is present in the array. If it is not present, then output -1.

Note:

You have been given a random integer array/list(ARR) of size N, and an integer X. You need to search for the integer X in the given array/list using 'Linear Search'.

You have been required to return the index at which X is present in the array/list. If X has multiple occurrences in the array/list, then you need to return the index at which the first occurrence of X would be encountered. In case X is not present in the array/list, then return -1.

'Linear search' is a method for finding an element within an array/list. It sequentially checks each element of the array/list until a match is found or the whole array/list has been searched.

Problem:

Solution:

Hint:

Your Code:

Main Code:

Code Pair:

Java (SE 1.8):

Custom Input:

Submit Solution:

15. Arrange Numbers In Array

a. Arrange Numbers In Array

- b. [Send Feedback](#)
- c. You have been given an empty array(ARR) and its size N. The only input taken from the user will be N and you need not worry about the array.
- d. Your task is to populate the array using the integer values in the range 1 to N(both inclusive) in the order - 1,3,5,.....,6,4,2.

e. Note:

- f. You need not print the array. You only need to populate it.

g.

h. Input Format :

- i. The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.
- j.
- k. The first and the only line of each test case or query contains an integer 'N'.
- l.

m. **Output Format :**

n. For each test case, print the elements of the array/list separated by a single space.

o.

p. Output for every test case will be printed in a separate line.

q.

r. **Constraints :**

s. $1 \leq t \leq 10^2$

t. $0 \leq N \leq 10^4$

u.

v. Time Limit: 1sec

w.

x. **Sample Input 1 :**

y. 1

z. 6

aa.

bb. **Sample Output 1 :**

cc. 1 3 5 6 4 2

dd.

ee. **Explanation of Sample Input 1 :**

ff. Since the value of N is 6, the number will be stored in the array in such a fashion that 1 will appear at 0th index, then 2 at the last index, in a similar fashion 3 is stored at index 1. Hence the array becomes 1 3 5 6 4 2.

gg.

hh. **Sample Input 2 :**

ii. 2

jj. 9

kk. 3

ll.

mm. **Sample Output 2 :**

nn. 1 3 5 7 9 8 6 4 2

oo. 1 3 2

```
import java.util.Scanner;
```

```
public class Solution {
```

```
public static void arrange(int[] arr, int n) {  
  
    if (n==0){  
  
        return;  
  
    }  
  
    int s=0;  
  
    int e=n-1;  
  
    int val=1;  
  
    int mid=n/2;  
  
    arr[mid]=n;  
  
  
  
  
  
  
    while((s<=(n-1)/2) && (e>=((n-1)/2)+1))  
  
    {  
  
        arr[s]=val;  
  
        val++;  
  
        arr[e]=val;  
  
        val++;  
  
        s++;  
  
        e--;  
    }  
}
```

}

}

}

[Coding Ninjas](#)

classroom.codingninjas.com/app/classroom/me/19552/content/388792/offering/5518017/problem/979

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ASK/VIEW DOUBT SOLUTION HINT Your Code Main Code Code Pair Java (SE 1) ▾

Problem Result

Arrange Numbers In Array

Send Feedback

You have been given an empty array(ARR) and its size N. The only input taken from the user will be N and you need not worry about the array.

Your task is to populate the array using the integer values in the range 1 to N (both inclusive) in the order - 1,3,5,.....,6,4,2.

Note:

You need not print the array. You only need to populate it.

Input Format :

The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then follow t test cases follow.

```
1+ import java.util.Scanner;
2+ public class Solution {
3+
4+     public static void arrange(int[] arr, int n) {
5+
6+         if (n==0){
7+             return;
8+         }
9+         int s=0;
10+        int e=n-1;
11+        int val=1;
12+        int mid=n/2;
13+        arr[mid]=n;
14+
15+
16+        while((s<(n-1)/2) && (e>=(n-1)/2)+1))
17+        {
18+            arr[s]=val;
19+            val++;
20+            arr[e]=val;
21+            val++;
22+            s++;
23+            e--;
24+        }
25+
26+
27+
28+    }
29+
30+ }
```

< PREVIOUS > NEXT CUSTOM INPUT SUBMIT SOLUTION

29°C Light rain ENG 31-07-2022

16. More About Data type

17. Non Primitive

Non Primitives

Send Feedback

Which among the following are non-primitive datatypes?

Options

This problem may have one or more correct answers

Array ✓
 int
 char
 Scanner ✓

Correct Answer

Attempts left: 1/2

a.

18. Primitives With Functions

19. Predict The Output

Lecture 9 : Arrays

Deadline: Aug 6, 2022, 11:59 PM

- Primitives With Functions • 07:06
- Predict The Output • 30.0/30
- Arrays With Functions-1 • 07:00
- Predict The Output • 30.0/30
- Predict The Output • 30.0/30
- Arrays With Functions-2 • 06:49
- Predict The Output • 30.0/30

Predict The Output

Send Feedback

What will be the output of the following code?

```
public static int sum(int [] arr)
{
    int arrsum=0;
    for(int i=0;i<5;i++)
        arrsum+=arr[i];
    return arrsum;
}

public static void main (String[] args) {
    int arr[]={1,2,3,4,5,6,7,8};
    System.out.print(sum(arr));
}
```

Options

This problem has only one correct answer

36
 15 ✓
 21
 10

Correct Answer

Attempts left: 1/2

a.

20. Arrays With Functions-1

21. Predict The Output

Lecture 9 : Arrays
Deadline Aug 6, 2022, 11:59 PM

Arrays With Functions-1 07:00
Predict The Output 30.0/30
Predict The Output 30.0/30
Arrays With Functions-2 06:49
Predict The Output 30.0/30
Predict The Output 30.0/30
Print All Pairs 07:50

Predict The Output

What will be the output of the following code?

```
public static void mul(int [] arr)
{
    for(int i=0;i<arr.length;i++)
        arr[i]*=2;
}

public static void main (String[] args) {
    int arr[]={1,2,3,4,5};
    mul(arr);
    for(int i=0;i<arr.length;i++)
    {
        System.out.print(arr[i]);
    }
}
```

PREVIOUS NEXT SUBMIT

a.

22. Predict The Output

Lecture 9 : Arrays
Deadline Aug 6, 2022, 11:59 PM

Predict The Output 30.0/30
Predict The Output 30.0/30
Arrays With Functions-2 06:49
Predict The Output 30.0/30
Predict The Output 30.0/30
Print All Pairs 07:50
Swap Alternate 1 Doubt asked 120.0/120

Predict The Output

What will be the output of the following code ?

```
public class Main {
    public static void change(int input[]){
        input[0] = 15;
    }

    public static void main(String args[]){
        int arr[] = new int[5];
        change(arr);
        System.out.println(arr[0]);
    }
}
```

PREVIOUS NEXT SUBMIT

23. Arrays With Functions-2

24. Predict The Output

The screenshot shows a computer desktop with a browser window open to the Coding Ninjas Classroom website. The main content area displays a 'Lecture 9 : Arrays' section from August 6, 2022, at 11:59 PM. A sidebar lists several activities: 'Arrays With Functions-2' (06:49), 'Predict The Output' (30.0/30), 'Predict The Output' (30.0/30), 'Print All Pairs' (07:50), and 'Swap Alternate' (120.0/120). Below this is an 'Assignment' section with a score of 1080.00/1080. The central part of the screen shows a 'Predict The Output' problem. The question asks: "What will be the output of the following code?" It includes two Java code snippets:

```
public class Main {  
    public static void change(int input[]){  
        input = new int[5];  
        input[0] = 15;  
    }  
  
    public static void main(String args[]){  
        int arr[] = new int[5];  
        change(arr);  
        System.out.println(arr[0]);  
    }  
}
```

The 'Options' section shows three radio buttons: '15' (selected), '0' (unchecked), and 'Error' (unchecked). The 'Correct Answer' is '15'. The 'Solution Description' explains that 'arr' is a reference to the array, and since it's passed by reference, changing it in the function doesn't affect the original array.

a.

25. Predict The Output

This screenshot is identical to the one above, showing the same lecture content, assignment score, and 'Predict The Output' problem. The code snippets and solution description are also the same.

a.

26. Print All Pairs

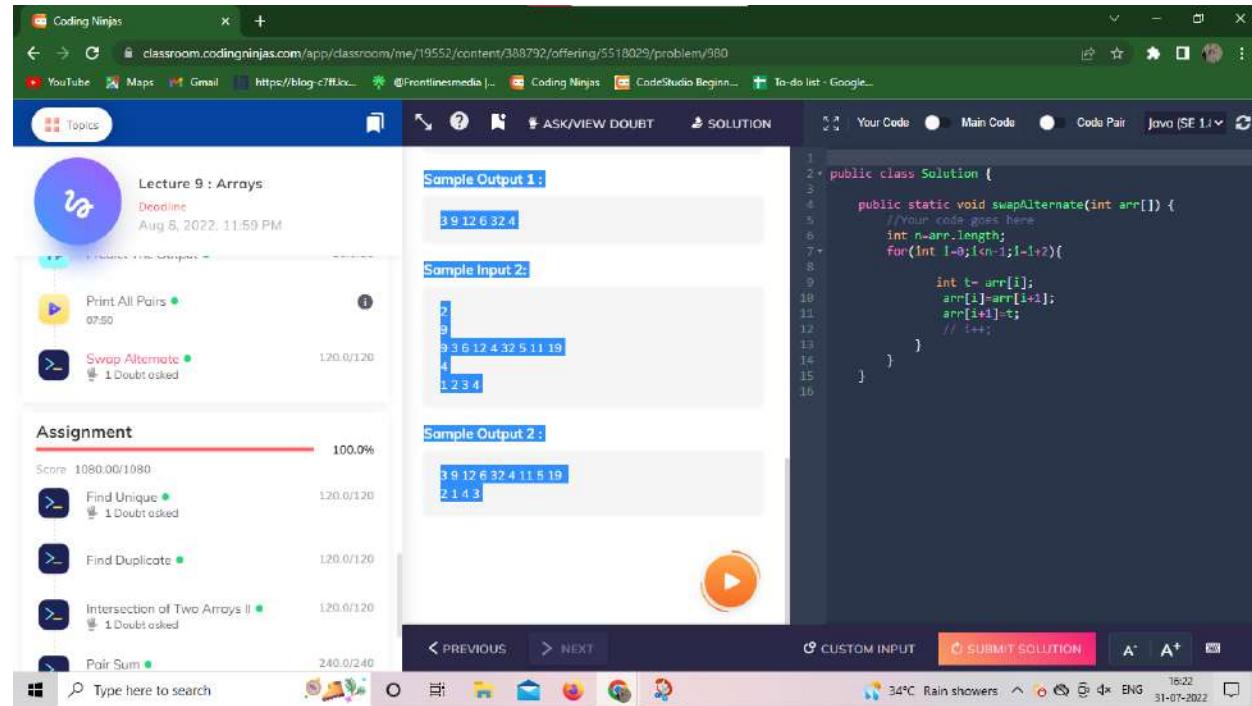
27. Swap Alternate

a. Swap Alternate

- b. [Send Feedback](#)
- c. You have been given an array/list(ARR) of size N. You need to swap every pair of alternate elements in the array/list.
- d. You don't need to print or return anything, just change in the input array itself.
- e. **Input Format :**
- f. The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.
- g.
- h. First line of each test case or query contains an integer 'N' representing the size of the array/list.
- i.
- j. Second line contains 'N' single space separated integers representing the elements in the array/list.
- k.
- l. **Output Format :**
- m. For each test case, print the elements of the resulting array in a single row separated by a single space.
- n.
- o. Output for every test case will be printed in a separate line.
- p.
- q. **Constraints :**
- r. $1 \leq t \leq 10^2$
- s. $0 \leq N \leq 10^5$
- t. Time Limit: 1sec
- u.
- v. **Sample Input 1:**
- w. 1
- x. 6
- y. 9 3 6 12 4 32
- z.
- aa. **Sample Output 1 :**
- bb. 3 9 12 6 32 4
- cc.
- dd. **Sample Input 2:**
- ee. 2
- ff. 9
- gg. 9 3 6 12 4 32 5 11 19
- hh. 4

- ii. 1 2 3 4
jj.
kk. **Sample Output 2 :**
ll. 3 9 12 6 32 4 11 5 19
mm. 2 1 4 3

```
public class Solution {  
  
    public static void swapAlternate(int arr[]) {  
  
        //Your code goes here  
  
        int n=arr.length;  
  
        for(int i=0;i<n-1;i=i+2){  
  
            int t= arr[i];  
  
            arr[i]=arr[i+1];  
  
            arr[i+1]=t;  
  
            // i++;  
  
        }  
  
    }  
}
```



28. ASSIGNMENT:-

29. Find Unique

- a. public class Solution{
- b.
- c.
- d. public static int findUnique(int[] arr){
- e.
- f. int ans=0;
- g. int n=arr.length;
- h. for(int i=0;i<n;i++)
- i. {
- j. c=2;
- k. for(int j=0;j<n;j++)
- l. {
- m. if(arr[i]==arr[j])
- n. {
- o. C--;
- p. }
- q. }
- r. if(c!=0)
- s. {

- t. `ans=arr[i];`
- u. `}`
- v. `}`
- w. `return ans;`
- x. `}`
- y. `}`
- z.

The screenshot shows a Java code editor with the following code:

```

1+ public class Solution{
2+
3+     public static int findUnique(int[] arr){
4+
5+         int ans=0;
6+         int n=arr.length;
7+         for(int i=0;i<n;i++){
8+             c=2;
9+             for(int j=0;j<n;j++){
10+                 if(arr[i]==arr[j]){
11+                     c--;
12+                 }
13+             }
14+             if(c==0){
15+                 ans=arr[i];
16+             }
17+         }
18+     }
19+     return ans;
20+ }
21+
22+
23+
24+
25+ }
```

Find Unique

You have been given an integer array/list(ARR) of size N. Where N is equal to $2M + 1$.
Now, in the given array/list, 'M' numbers are present twice and one number is present only once.
You need to find and return that number which is unique in the array/list.

Note:
Unique element is always present in the array/list according to the given condition.

Input format :
The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.

CUSTOM INPUT **SUBMIT SOLUTION**

aa.

30. Find Duplicate

- a.
- b. `public class Solution{`
- c.
- d. `public static int duplicateNumber(int arr[]) {`
- e. `//Your code goes here`
- f. `int a=0;`
- g.
- h. `int n=arr.length;`
- i. `for(int i=0;i<n;i++){`
- j. `int c=1;`
- k. `for(int j=i+1;j<n;j++){`
- l. `if(arr[i]==arr[j])`
- m. `{`

```

n.         c++;
o.     }
p.
q.     }
r.     if(c!=1)
s.     {
t.         a=arr[i];
u.     }
v.
w.     }
x.
y.     return a;
z.   }
aa. }
bb.

```

The screenshot shows a coding environment on a Windows operating system. The title bar says "Coding Ninjas". The address bar shows the URL: classroom.codingninjas.com/app/classroom/me/19552/content/388792/offering/5518030/problem/1288. The main window displays a Java code editor with the following code:

```

1+ public class Solution{
2+     public static int duplicateNumber(int arr[]){
3+         //Your code goes here
4+         int a=0;
5+
6+         int n=arr.length;
7+         for(int i=0;i<n;i++){
8+             int c=1;
9+             for(int j=i+1;j<n;j++){
10+                 if(arr[i]==arr[j]){
11+                     c++;
12+                 }
13+             }
14+             if(c>1)
15+             {
16+                 a=arr[i];
17+             }
18+         }
19+     }
20+     return a;
21+ }
22+
23+
24+
25+
26+ }
27+

```

The code implements a nested loop to compare each element of the array with every other element. If a duplicate is found, it increments a counter 'c'. If 'c' becomes greater than 1, it means a duplicate has been found, and that value is stored in variable 'a', which is then returned.

Below the code editor, there are tabs for "Problem" and "Result". The "Problem" tab is active. The problem statement is titled "Find Duplicate" and describes the task of finding a duplicate number in an array of size N where N ≥ 3. It notes that the array contains numbers from 0 to (N - 2) and that one number is present at least once. A note specifies that the array consists of values ranging from 0 to 3 and among these, there is a single integer value that is present twice. The user needs to find and return that duplicate number present in the array.

The input format is described as follows: The first line contains an integer 't' which denotes the number of test cases or queries to be run. Then, t test cases follow.

The bottom of the screen shows a taskbar with icons for File, Home, Task View, Start, Search, Edge, Mail, Google, and File Explorer. The system tray shows the date as 31-07-2022, the time as 16:24, and the weather as 34°C Rain showers.

CC.

31. Intersection of Two Arrays II

-
- public class Solution{
-
- public static void intersections(int arr1[], int arr2[]) {
- //Your code goes here

```

f.    int n=arr1.length;
g.    int m=arr2.length;
h.    //int a=0;
i.
j.    for(int i=0;i<n;i++){
k.        for(int j=0;j<m;j++)
l.        {
m.            if(arr1[i]==arr2[j])
n.            {
o.                System.out.print(arr1[i]+" ");
p.                arr2[j]=-1;
q.                break;
r.
s.            }
t.        }
u.
v.    }
w. }
x. }
y.

```

The screenshot shows a Java code editor interface. The code is as follows:

```

1  public class Solution{
2
3      public static void intersection(int arr1[], int arr2[]){
4          //Your code goes here
5          int n=arr1.length;
6          int m=arr2.length;
7          //int a=0;
8
9          for(int i=0;i<n;i++){
10             for(int j=0;j<m;j++)
11             {
12                 if(arr1[i]==arr2[j])
13                 {
14                     System.out.print(arr1[i]+" ");
15                     arr2[j]=-1;
16                     break;
17                 }
18             }
19         }
20     }
21 }
22
23
24

```

Note :

- Input arrays/lists can contain duplicate elements.
- The intersection elements printed would be in the order they appear in the first array/list(ARR1)

Input format:

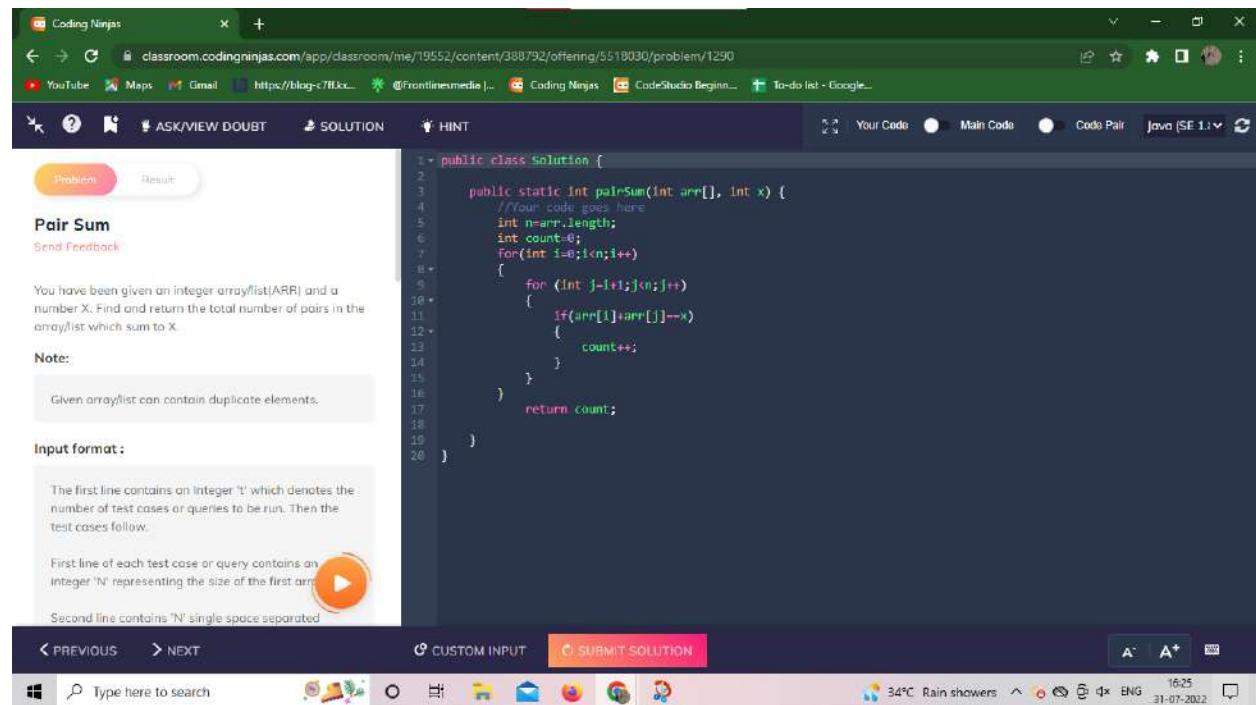
The first line contains an Integer 'l' which denotes the number of test cases. This is followed by l test cases. Each test case consists of two lines. The first line of each test case contains an integer 'n' which denotes the size of the first array. This is followed by n space-separated integers which denote the elements of the array. The second line of each test case contains an integer 'm' which denotes the size of the second array. This is followed by m space-separated integers which denote the elements of the array.

Z.

32. Pair Sum

a. public class Solution {

b.
c. public static int pairSum(int arr[], int x) {
d. //Your code goes here
e. int n=arr.length;
f. int count=0;
g. for(int i=0;i<n;i++)
h. {
i. for (int j=i+1;j<n;j++)
j. {
k. if(arr[i]+arr[j]==x)
l. {
m. count++;
n. }
o. }
p. }
q. return count;
r.
s. }
t. }
u.



The screenshot shows a coding interface on Coding Ninjas. The title bar says "Coding Ninjas". The address bar shows the URL: classroom.codingninjas.com/app/classroom/me/19552/content/388792/offering/5518030/problem/1290. The main area displays a Java code editor with the following code:

```

1+ public class Solution {
2+
3+     public static int pairSum(int arr[], int x) {
4+         //Your code goes here
5+         int n=arr.length;
6+         int count=0;
7+         for(int i=0;i<n;i++)
8+         {
9+             for (int j=i+1;j<n;j++)
10+            {
11+                if(arr[i]+arr[j]==x)
12+                {
13+                    count++;
14+                }
15+            }
16+        }
17+        return count;
18+    }
19+ }

```

To the left of the code editor, there is a problem statement titled "Pair Sum" with a note: "Given arraylist can contain duplicate elements." Below the code editor, there is an input format note: "The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow." and a "Submit Solution" button.

V.

33. Triplet Sum

a.

```
b. public class Solution {  
c.  
d.     public static int findTriplet(int[] arr, int x) {  
e.  
f.         int n=arr.length;  
g.         int c=0;  
h.         for(int i=0;i<n;i++)  
i.             {  
j.                 for(int j=i+1;j<n;j++)  
k.                     {  
l.                         for(int k=j+1;k<n;k++)  
m.                             {  
n.                                 if(arr[i]+arr[j]+arr[k]==x)  
o.                                     {  
p.                                         c++;  
q.                                     }  
r.                                 }  
s.                             }  
t.                         }  
u.                     return c;  
v.                 }  
w.  
x.             }  
y.
```

```

1 public class Solution {
2     public static int findTriplet(int[] arr, int x) {
3         int n=arr.length;
4         int c=0;
5         for(int i=0;i<n;i++)
6         {
7             for(int j=i+1;j<n;j++)
8             {
9                 for(int k=j+1;k<n;k++)
10                 {
11                     if(arr[i]+arr[j]+arr[k]==x)
12                     {
13                         c++;
14                     }
15                 }
16             }
17         }
18         return c;
19     }
20 }
21
22
23
24

```

34. Sort 0 1

- public class Solution {
-
- public static void sortZeroesAndOne(int[] arr) {
- //Your code goes here
- int n=arr.length;
- int c=0;
-
- for(int i=0;i<n; i++)
- {
- if(arr[i]==0)
- c++;
- }
- m.
- for(int j=0;j<c;j++)
- {
- arr[j]=0;
- }
- r.
- for(int k=c;k<n;k++){
- arr[k]=1;
- }
- }

W. }

X.

The screenshot shows a Java code editor interface. The code is a solution for a problem titled "Sort 0 1". The code uses two pointers, c and j, to swap elements in the array arr until all zeros are moved to the front. The code editor includes tabs for Problem, Result, SOLUTION, HINT, and a toolbar with various icons. Below the code editor is a browser toolbar with links like YouTube, Maps, Gmail, and a search bar. At the bottom of the screen is a Windows taskbar with icons for File Explorer, Mail, and other applications, along with system status information like weather and date.

```
1+ public class Solution {  
2+     public static void sortZeroesAndOne(int[] arr) {  
3+         //Your code goes here  
4+         int n=arr.length;  
5+         int c=0;  
6+  
7+         for(int i=0;i<n; i++)  
8+         {  
9+             if(arr[i]==0)  
10+                 c++;  
11+         }  
12+  
13+         for(int j=0;j<c;j++)  
14+         {  
15+             arr[j]=0;  
16+         }  
17+  
18+         for(int k=c;k<n;k++)  
19+         {  
20+             arr[k]=1;  
21+         }  
22+     }  
23+ }
```

Lec-10:-Arrays-2 [Searching & Sorting –10-Videos 11-Problems]

1. What is Binary Search ?
2. Code Binary Search
3. Binary Search
4. Selection Sort
5. Code Selection Sort
6. SS code explanation
7. Bubble sort understanding
8. Code BSort
9. Explanation of BSort
10. Insertion sort
11. Code IS
12. Explanation IS
13. How to merge 2 sorted arrays
14. Code merge sort
15. Explanation for MS

The screenshot shows a Java code editor within a web-based IDE. The code is a binary search algorithm:

```
1 public class Solution {  
2     public static int binarySearch(int[] arr, int x) {  
3         //Your code goes here  
4         int s=0;  
5         int e=arr.length-1;  
6  
7         while(s<=e)  
8         {  
9             int mid=(s+e)/2;  
10            if(arr[mid]==x)  
11            {  
12                return mid;  
13            }  
14            else if(arr[mid]<x)  
15            {  
16                s=mid+1;  
17            }  
18            else if(arr[mid]>x)  
19            {  
20                e=mid-1;  
21            }  
22        }  
23        return -1;  
24    }  
25}  
26  
27  
28}
```

The code editor has tabs for 'Your Code' and 'Main Code'. Below the code, there are sections for 'Input format:', 'Test cases:', and a 'Run' button. The status bar at the bottom shows system information like weather, battery level, and date.

```
public class Solution {  
    public static int binarySearch(int[] arr, int x) {  
        //Your code goes here  
        int s=0;
```

```
int e=arr.length-1;

while(s<=e)
{
    int mid=(s+e)/2;
    if(arr[mid]==x)
    {
        return mid;
    }
    else if(arr[mid]<x)
    {
        s=mid+1;
    }
    else if(arr[mid]>x)
    {
        e=mid-1;
    }
}

return -1;
}
```

```

1  public class Solution {
2
3      public static void selectionSort(int[] arr) {
4          //Your code goes here
5          // int min=0;
6          int n=arr.length;
7          int t=0;
8          for(int i=0;i<n-1;i++){
9
10         int min=Integer.MAX_VALUE;
11         int minIndex=-1;
12         for(int j=i;j<n;j++){
13             if(arr[j]<min){
14                 min=arr[j];
15                 minIndex=j;
16             }
17         }
18         t=arr[minIndex];
19         arr[minIndex]=arr[i];
20         arr[i]=t;
21     }
22 }
23
24
25
26

```

Selection Sort

Send Feedback

Provided with a random integer arraylist(ARR) of size N, you have been required to sort this array using 'Selection Sort'.

Note:

Change in the input array/list itself. You don't need to return or print the elements.

Input format:

The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.

First line of each test case or query contains an Integer 'N' representing the size of the arraylist.

< PREVIOUS > NEXT CUSTOM INPUT SUBMIT SOLUTION

2.Selection Sort:

```
public class Solution {
```

```

    public static void selectionSort(int[] arr) {
        //Your code goes here
        // int min=0;
        int n=arr.length;
        int t=0;
        for(int i=0;i<n-1;i++){
            {
                int min=Integer.MAX_VALUE;
                int minIndex=-1;
                for(int j=i;j<n;j++){
                    if(arr[j]<min){
                        min=arr[j];
                        minIndex=j;
                    }
                }
            }
            t=arr[minIndex];
            arr[minIndex]=arr[i];
            arr[i]=t;
        }
    }
}

```

```
}
```

```
}
```

```
1 public class Solution {  
2     public static void bubbleSort(int[] arr){  
3         //Your code goes here  
4         int n=arr.length;  
5         int t=0;  
6         for(int j=0;j<n;j++){  
7             for(int i=0;i<n-1;i++){  
8                 if(arr[i]>arr[i+1]) {  
9                     t=arr[i];  
10                    arr[i]=arr[i+1];  
11                    arr[i+1]=t;  
12                }  
13            }  
14        }  
15    }  
16}
```

3. Code Bubble Sort

```
public class Solution {
```

```
    public static void bubbleSort(int[] arr){
```

```
        //Your code goes here
```

```
        int n=arr.length;
```

```
        int t=0;
```

```
        for(int j=0;j<n;j++){
```

```
            for(int i=0;i<n-1;i++){
```

```
{
```

```
                if(arr[i]>arr[i+1]) {
```

```
                    t=arr[i];
```

```
                    arr[i]=arr[i+1];
```

```
                    arr[i+1]=t;
```

```
}
```

```
}
```

```
}
```

}

}

The screenshot shows a Java code editor interface. At the top, there are several tabs: "Online Java Compiler - online ed...", "Coding Ninjas", "To-do list - Google Sheets", "Java Course-1 - Google Docs", and others. Below the tabs, there's a toolbar with icons for "ASK/VIEW DOUBT", "SOLUTION", "HINT", and buttons for "Your Code", "Main Code", "Code", and "Java SE 11".

The main area is titled "Code Insertion Sort" and contains the following code:

```
1 public class Solution {  
2     public static void insertionSort(int[] arr) {  
3         //Your code goes here  
4         int n=arr.length;  
5           
6         for(int i=1;i<n;i++)  
7         {  
8             int j=i-1;  
9             int temp=arr[i];  
10            while(j>=0 && arr[j]>temp)  
11            {  
12                arr[j+1]=arr[j];  
13                j--;  
14            }  
15            arr[j+1]=temp;  
16        }  
17    }  
18}  
19  
20}
```

Below the code, there are sections for "Note" and "Input format". A note says: "Change in the input array/list itself. You don't need to return or print the elements." An input format note says: "The first line contains an Integer 'T' which denotes the number of test cases or queries to be run. Then the test cases follow." A "CUSTOM INPUT" button is available.

At the bottom, there are navigation buttons for "PREVIOUS" and "NEXT", a search bar, and system status indicators like weather (24°C, Mostly cloudy), date (06-08-2022), and time (08:01).

4.Code Insertion Sort:

```
public class Solution {  
  
    public static void insertionSort(int[] arr) {  
        //Your code goes here  
        int n=arr.length;  
  
        for(int i=1;i<n;i++)  
        {  
            int j=i-1;  
            int temp=arr[i];  
            while(j>=0 && arr[j]>temp)  
            {  
                arr[j+1]=arr[j];  
                j--;  
            }  
            arr[j+1]=temp;  
        }  
    }  
}
```

```
}
```

```
}
```

The screenshot shows a Java code editor window with the following details:

- Title Bar:** Online Java Compiler - online edX X Coding Ninjas X To-do list - Google Sheets X Java Course-1 - Google Docs X
- Address Bar:** classroom.codingninjas.com/app/classroom/me/19552/content/388793/offering/5518044/problem/981
- Code Area:**

```
1+ public class Solution {
2+     public static int[] merge(int arr1[], int arr2[]) {
3+         int n=arr1.length;
4+         int m=arr2.length;
5+         int i=0;
6+         int j=0;
7+         int k=0;
8+         int[] arr3=new int[n+m];
9+
10        while(i<n && j<m)
11        {
12            if(arr1[i]<=arr2[j])
13            {
14                arr3[k]=arr1[i];
15                i++;
16                k++;
17            }
18            else
19            {
20                arr3[k]=arr2[j];
21                j++;
22                k++;
23            }
24        }
25        while(i<n)
26        {
27            arr3[k]=arr1[i];
28            i++;
29            k++;
30        }
31        while(j<m)
32        {
33            arr3[k]=arr2[j];
34            j++;
35            k++;
36        }
37    }
38}
```
- Toolbars:** ASK/VIEW DOUBT, SOLUTION, HINT, Your Code, Main Code, Code...
- Buttons:** Problem, Result, PREVIOUS, NEXT, CUSTOM INPUT, SUBMIT SOLUTION.
- System Status:** 24°C Mostly cloudy, 07:58, 06-08-2022

5. Code Merge two Sorted Arrays:

```
public class Solution {
    public static int[] merge(int arr1[], int arr2[]) {
        int n=arr1.length;
        int m=arr2.length;
        int i=0;
        int j=0;
        int k=0;
        int[] arr3=new int[n+m];

        while(i<n && j<m)
        {
            if(arr1[i]<=arr2[j])
            {
                arr3[k]=arr1[i];
                i++;
                k++;
            }
            else
```

```
        {
            arr3[k]=arr2[j];
            j++;
            k++;
        }
    }
while(i<n){
    arr3[k]=arr1[i];
    i++;
    k++;
}
while(j<m){
    arr3[k]=arr2[j];
    j++;
    k++;
}
return arr3;
}
}
```

Assignment:

1. Push Zeros to end
2. Rotate array
3. Second Largest in array
4. Check Array Rotation
5. Sort 0 1 2
6. Sum of Two Arrays

```

1+ public class Solution {
2+
3+     public static void pushZerosAtEnd(int[] arr) {
4+         //Your code goes here
5+         int n=arr.length;
6+         int t=0;
7+
8+
9+         int i = 0;
10+        int j = 0;
11+        for(i=0;i<n;i++){
12+            if(arr[i]!=0){
13+                t=arr[i];
14+                arr[i]=arr[j];
15+                arr[j]=t;
16+                j++;
17+            }
18+        }
19+
20+
21+
22+    }
}

```

Push Zeros to end

Note:

Change in the input array/list itself. You don't need to return or print the elements.

You need to do this in one scan of array only. Don't use extra space.

Input format :

The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the

< PREVIOUS > NEXT CUSTOM INPUT SUBMIT SOLUTION A- A+ 24°C Mostly cloudy 07:48 06-08-2022

1.Push Os to end:

```
public class Solution {
```

```
    public static void pushZerosAtEnd(int[] arr) {
```

```
        //Your code goes here
```

```
        int n=arr.length;
```

```
        int t=0;
```

```
        int i = 0;
```

```
        int j = 0;
```

```
        for(i=0;i<n;i++){
```

```
[REDACTED]
```

```
if(arr[i]!=0){  
    t=arr[i];  
    arr[i]=arr[j];  
    arr[j]=t;  
    j++;  
}  
}  
}  
}
```

The screenshot shows a Java code editor within a web-based IDE. The code is a solution for rotating an array. The editor has tabs for 'Your Code' (selected), 'Main Code', and 'Code ...'. The code itself is as follows:

```
public class Solution {  
    public static void rotate(int[] arr, int d) {  
        int[] arr1 = new int[arr.length];  
        int i;  
        for(i=0;i < arr.length;i++) {  
            arr1[i] = arr[i];  
        }  
        for(i = 0;i < arr.length - d;i++) { // shifting elements from last  
            arr[i] = arr1[i+d];  
        }  
        for(int j = i;j < arr.length;j++) { // copying the elements to be rotated  
            arr[j] = arr1[d - arr.length + j];  
        }  
    }  
}
```

Below the code, there's a 'Problem' tab with a 'Result' button, a 'Rotate array' section with a 'Send Feedback' button, and a note about changing the input array itself. A 'Note:' section also exists. At the bottom, there's an 'Input format:' section with instructions and a 'CUSTOM INPUT' button. The status bar at the bottom right shows the date and time.

2.Rotate Array:

```
public class Solution {  
  
    public static void rotate(int[] arr, int d) {  
  
        int[] arr1 = new int[arr.length];  
  
        int i;  
  
        for(i= 0;i < arr.length;i++) {  
  
            arr1[i] = arr[i];  
  
        }  
  
        for(i = 0;i < arr.length - d;i++) {// shifting elements from last  
  
            arr[i] = arr1[i+d];  
  
        }  
  
        for(int j = i;j < arr.length;j++) {// copying the elements to be rotated  
  
            arr[j] = arr1[d - arr.length + j];  
  
        }  
    }  
}
```

```

1+ public class Solution {
2+     public static int secondLargestElement(int[] arr) {
3+         //Your code goes here
4+         int n=arr.length;
5+
6+         if(n==0){
7+             return Integer.MIN_VALUE;
8+         }
9+
10+        int f = arr[0];
11+        int s = Integer.MIN_VALUE;
12+
13+        for (int i = 0; i < n; i++) {
14+            if (arr[i] > f) {
15+                s = f;
16+                f = arr[i];
17+            }
18+
19+            if (arr[i] > s && arr[i] < f)
20+            {
21+                s = arr[i];
22+            }
23+
24+        }
25+
26+        return s;
27+
28+    }
29+
30+ }

```

Second Largest in array

You have been given a random integer array/list(ARR) of size N. You are required to find and return the second largest element present in the array/list.

If N <= 1 or all the elements are same in the array/list then return -2147483648 or -2³¹(It is the smallest value for the range of Integer).

Input format:

The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.

The first line of each test case or query contains an integer 'N' representing the size of the array/list.

The second line contains 'N' single space separated integers representing the elements in the array/list.

< PREVIOUS > NEXT CUSTOM INPUT SUBMIT SOLUTION

3. Second largest in array:

```

public class Solution {

    public static int secondLargestElement(int[] arr) {

        //Your code goes here

        int n=arr.length;

        if(n==0){

            return Integer.MIN_VALUE;

        }

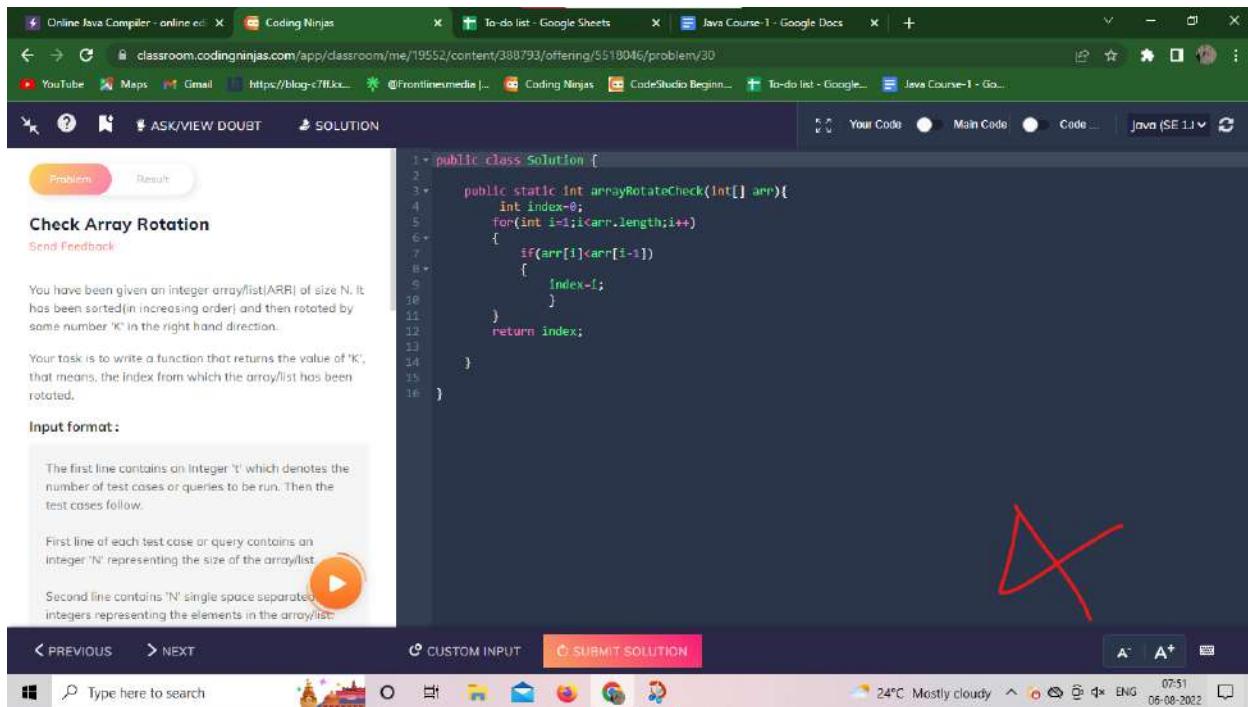
        int f = arr[0];

        int s = Integer.MIN_VALUE;

```



```
for (int i = 0; i < n; i++)  
{  
    if (arr[i] > f)  
    {  
        s = f;  
        f = arr[i];  
    }  
  
    if (arr[i] > s && arr[i] < f)  
    {  
        s = arr[i];  
    }  
}  
  
return s;  
}
```



Check Array Rotation

You have been given an integer array/list(ARR) of size N. It has been sorted(in increasing order) and then rotated by some number 'K' in the right hand direction.

Your task is to write a function that returns the value of 'K', that means, the index from which the array/list has been rotated.

Input format:

The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.

First line of each test case or query contains an integer 'N' representing the size of the array/list.

Second line contains 'N' single space separated integers representing the elements in the array/list.

```
public class Solution {  
    public static int arrayRotateCheck(int[] arr){  
        int index=0;  
        for(int i=1;i<arr.length;i++){  
            if(arr[i]<arr[i-1])  
                index=i;  
        }  
        return index;  
    }  
}
```

< PREVIOUS > NEXT CUSTOM INPUT SUBMIT SOLUTION A- A+ 24°C Mostly cloudy 07:51 06-08-2022

4.Check Array Rotation:

```
public class Solution {  
  
    public static int arrayRotateCheck(int[] arr){  
  
        int index=0;  
  
        for(int i=1;i<arr.length;i++)  
        {  
            if(arr[i]<arr[i-1])  
            {  
                index=i;  
            }  
        }  
    }  
}
```

```
 }  
 return index;
```

```
}
```

Sort 0 1 2

```
public class Solution {  
    public static void sort012(int[] arr){  
        int indexOf0 = 0;  
        int indexOf2 = arr.length - 1;  
        int i = 0;  
        int temp = 0;  
        while(i < arr.length) {  
            if(arr[i] == 0 && i > indexOf0) {  
                temp = arr[i];  
                arr[i] = arr[indexOf0];  
                arr[indexOf0] = temp;  
                indexOf0++;  
            } else if(arr[i] == 2 && i < indexOf2) {  
                temp = arr[i];  
                arr[i] = arr[indexOf2];  
                arr[indexOf2] = temp;  
                indexOf2--;  
            } else  
                i++;  
        }  
    }  
}
```

Note:

You need to change in the given array/list itself.
Hence, no need to return or print anything.

Input format:

The first line contains an integer 't' which denotes the number of test cases or queries to be run. Then follow t test cases follow.

Custom Input

Submit Solution

24°C Mostly cloudy 07:51 06-08-2022

5.Sort 0 1 2

```
public class Solution {
```

```
    public static void sort012(int[] arr){  
        int indexOf0 = 0;
```



```
int indexOf2 = arr.length -1;  
  
int i = 1;  
  
int temp = 0;  
  
while(i < arr.length ) {  
  
    if(arr[i] == 0 && i > indexOf0) {  
  
        temp = arr[i];  
  
        arr[i] = arr[indexOf0];  
  
        arr[indexOf0] = temp;  
  
        indexOf0++;  
  
    } else if(arr[i] == 2 && i < indexOf2) {  
  
        temp = arr[i];  
  
        arr[i] = arr[indexOf2];  
  
        arr[indexOf2] = temp;  
  
        indexOf2--;  
  
    } else  
  
        i++;  
  
}  
  
}
```

```

1+ public class Solution {
2+     public static void sumOfTwoArrays(int arr1[], int arr2[], int output[]) {
3+         int i= arr1.length -1,j= arr2.length -1;
4+         int carry = 0;
5+         int k = Math.max(arr1.length,arr2.length);
6+
7+         while(i>=0 && j>=0) {
8+             int sum = arr1[i] +arr2[j] + carry;
9+             output[k] = sum%10;
10+            carry = sum /10;
11+            i--;
12+            j--;
13+            k--;
14+        }
15+        while(i>=0) {
16+            int sum = arr1[i] +carry;
17+            output[k] = sum%10;
18+            carry = sum /10;
19+            i--;
20+            k--;
21+        }
22+        while(j>=0) {
23+            int sum = arr2[j]+carry;
24+            output[k] = sum%10;
25+            carry = sum /10;
26+            j--;
27+            k--;
28+        }
29+        output[0] = carry;
30+    }
31+
32+ }
```

6.Sum of 2 arrays:

```

public class Solution {

    public static void sumOfTwoArrays(int arr1[], int arr2[], int output[]) {

        int i= arr1.length -1,j= arr2.length -1;

        int carry = 0;

        int k = Math.max(arr1.length,arr2.length);

        while(i>=0 && j>=0) {

            int sum = arr1[i] +arr2[j] + carry;

            output[k] = sum%10;

            carry = sum /10;

            i--;

            j--;

            k--;

        }

        if(j>=0) {
```



```
k=1;  
}  
  
while(i>=0) {  
  
    int sum = arr1[i] +carry;  
  
    output[k] = sum%10;  
  
    carry=sum/10;  
  
    i=1;  
  
    k=1;  
}  
  
while(j>=0) {  
  
    int sum = arr2[j]+carry;  
  
    output[k] = sum%10;  
  
    carry = sum/10;  
  
    j=1;  
  
    k=1;  
}  
  
output[0] = carry;  
}  
}
```

Lec-11:-2D Arrays [7-Videos 19-Problems]

1. Intro To Two Dimensional Arrays
2. Number of elements
3. 2-d Array
4. Basics of 2d array
5. Predict the output
6. Predict the output
7. Input And Printing 2d Array
8. Fill the output
9. How 2D Arrays Are Stored?
10. Predict the output
11. Length of 2-d array
12. Predict the output
13. Functions With 2d Arrays
14. Row Wise Sum
15. Return type
16. Predict the output
17. Predict the output
18. Largest Column Sum
19. Largest Row or Column
20. More About 2D Arrays
21. Predict the output
22. Predict the output
23. Declare a 2-d array

Lecture 11 : 2D Arrays

Deadline: Aug 13, 2022, 11:59 PM

Score: 520.00/520

Intro To Two Dimensional Arro... 08:41

Number of elements 20.0/20

2-d Array 20.0/20

Basics of 2d arrays 03:43

Predict the output 20.0/20

Predict the output 20.0/20

Input And Printing 2d Array 09:40

Number of elements

How many elements are present in a two dimensional array arr[2][5]?

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer.

Attempts left: 1/2

4
7
10 ✓
3

Correct Answer

PREVIOUS NEXT SUBMIT

Type here to search

24°C Mostly cloudy 08:12 06-08-2022

Lecture 11 : 2D Arrays

Deadline: Aug 13, 2022, 11:59 PM

Score: 520.00/520

Intro To Two Dimensional Arro... 08:41

Number of elements 20.0/20

2-d Array 20.0/20

Basics of 2d arrays 03:43

Predict the output 20.0/20

Predict the output 20.0/20

Input And Printing 2d Array 09:40

Fill the output 20.0/20

2-d Array

Send Feedback

How can we access the last element in last row in a 5*5 2-D array arr?

int arr[][]=new int[5][5];

Row number and element count starts from 0.

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer.

Attempts left: 0/2

arr[5][5]
arr[4][4] ✓
arr[4][5]
arr[5][4]

Correct Answer

PREVIOUS NEXT SUBMIT

Type here to search

24°C Mostly cloudy 08:13 06-08-2022

Lecture 11 : 2D Arrays

Deadline: Aug 13, 2022, 11:59 PM

Basics of 2d arrays • 03:43

Predict the output • 20.0/20

Predict the output • 20.0/20

Input And Printing 2d Array • 09:40

Fill the output • 20.0/20

How 2D Arrays Are Stored? • 10:00

Predict the output • 20.0/20

Waiting for faculty...
Type here to search

Predict the output

What will be the output of the following code?

```
public static void main (String[] args) {  
    int arr[][]=new int[4][5];  
    for(int i=0;i<5;i++)  
    {  
        arr[i][0]=2;  
    }  
    System.out.print(arr[3][0]);  
}
```

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer.

Attempts left: 0/2

0
 2
 Error ✓

Correct Answer

PREVIOUS NEXT SUBMIT

24°C Mostly cloudy ENG 06-08-2022

Lecture 11 : 2D Arrays

Deadline: Aug 13, 2022, 11:59 PM

Basics of 2d arrays • 03:43

Predict the output • 20.0/20

Predict the output • 20.0/20

Input And Printing 2d Array • 09:40

Fill the output • 20.0/20

How 2D Arrays Are Stored? • 10:00

Predict the output • 20.0/20

Length of 2-d array • 20.0/20

Waiting for faculty...
Type here to search

Predict the output

What will be the output of the following code?

```
public static void main (String[] args) {  
    int arr[][]=new int[4][5];  
    for(int i=0;i<4;i++)  
    {  
        for(int j=0;j<5;j++)  
            arr[i][j]=i;  
    }  
    System.out.print(arr[3][4]);  
}
```

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer.

Attempts left: 1/2

12 ✓
 10
 14
 ?

Correct Answer

PREVIOUS NEXT SUBMIT

24°C Mostly cloudy ENG 06-08-2022

Lecture 11 : 2D Arrays

Deadline
Aug 13, 2022, 11:59 PM

Fill the output

Send Feedback

What will be the output of the following code?

```
public static void main(String[] args)
{
    int[][] arr = new int [2][2];
    for (int i = 0; i < 2; i++) {
        for (int j = 0; j < 2; j++) {
            System.out.print(arr[i][j] + " ");
        }
    }
}
```

Answer

0 0 0 ✓

Correct Answer:

5

Waiting for pwebergage.com...

PREVIOUS NEXT SUBMIT

Type here to search

24°C Mostly cloudy 08:14 06-08-2022

Lecture 11 : 2D Arrays

Deadline
Aug 13, 2022, 11:59 PM

Predict the output

Send Feedback

What will be the output of the following code?

```
public static void main(String[] args)
{
    int[][] arr = { { 1, 2 }, { 3, 4 } };
    System.out.println(arr[0][0]+arr[1][1]);
}
```

Answer

5 ✓

Correct Answer:

6

Waiting for pwebergage.com...

PREVIOUS NEXT SUBMIT

Type here to search

24°C Mostly cloudy 08:14 06-08-2022

Lecture 11 : 2D Arrays

Deadline Aug 13, 2022, 11:59 PM

10:00

Predict the output 20.0/20

Length of 2-d array 20.0/20

Predict the output 20.0/20

Functions With 2d Arrays 10:00

Row Wise Sum 80.0/80
1 Doubt asked

Return type 20.0/20

Predict the output 20.0/20

Problem Result

Length of 2-d array

Select the correct option to get number of rows in a 2-d array(arr)?

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

arr.length ✓
 arr[0].length
 arr[1].length
 arr[1].row

Correct Answer

Attempts left: 1/2

X

Lecture 11 : 2D Arrays

Deadline Aug 13, 2022, 11:59 PM

10:00

Length of 2-d array 20.0/20

Predict the output 20.0/20

Functions With 2d Arrays 10:00

Row Wise Sum 80.0/80
1 Doubt asked

Return type 20.0/20

Predict the output 20.0/20

Predict the output 20.0/20

Problem Result

Predict the output

Send Feedback

What will be the output of the following code?

```
public static void main(String[] args){  
    int[][] arr = { {1,2,4,5,7},{3,4,5,6,7},{5,6,7,8,9} };  
    System.out.println(arr.length+arr[0].length);  
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

5
 6
 7
 8 ✓

Correct Answer

Attempts left: 1/2

C

Lecture 11 : 2D Arrays

Deadline
Aug 13, 2022, 11:59 PM

Functions With 2d Arrays 10:00

Row Wise Sum 1 Doubt asked 80.0/80

Return type 20.0/20

Predict the output 20.0/20

Predict the output 20.0/20

Largest Column Sum 10:00

Largest Row or Column 160.0/160

Problem Result

Row Wise Sum

Send Feedback

For a given two-dimensional integer array/list of size $(N \times M)$, find and print the sum of each of the row elements in a single line, separated by a single space.

Input Format :

The first line contains an integer 'N' which denotes the number of test cases or queries to be run. Then the test cases follow.

First line of each test case or query contains two integer values, 'N' and 'M', separated by a single space. They represent the 'rows' and 'columns' respectively, for the two-dimensional array/list.

Second line onwards, the next 'N' lines or rows represent the ith row values.

Each of the ith row constitutes 'M' column values.

```
public class Solution {  
    public static void rowWiseSum(int[][] mat) {  
        //Your code goes here  
        int rows=mat.length;  
        int cols=0;  
  
        if(rows!=0){  
            cols=mat[0].length;  
        }  
    }  
}
```

< PREVIOUS > NEXT CUSTOM INPUT SUBMIT SOLUTION

public class Solution {

```
public static void rowWiseSum(int[][] mat) {
```

```
    //Your code goes here
```

```
    int rows=mat.length;
```

```
    int cols=0;
```

```
    if(rows!=0){
```

```
        cols=mat[0].length;
```

```
}
```

```
for(int i=0;i<rows;i++){  
    int sum=0;  
  
    for(int j=0;j<cols;j++){  
  
        sum+=mat[i][j];  
    }  
  
    System.out.print(sum+" ");  
  
}  
  
}  
  
}
```

Lecture 11 : 2D Arrays

Deadline: Aug 13, 2022, 11:59 PM

Row Wise Sum • 1 Doubt asked 80.0/80

Return type • 20.0/20

Predict the output • 20.0/20

Predict the output • 20.0/20

Largest Column Sum • 10:00

Largest Row or Column • 160.0/160

More About 2D Arrays • 14:47

Problem Result

Return type

Send Feedback

What should be the return type of a function that returns a 2-d array?

Options

This problem has only one correct answer

Attempts left: 1/2

int

int []

int [][] ✓

Correct Answer

✓

Lecture 11 : 2D Arrays

Deadline: Aug 13, 2022, 11:59 PM

1 Doubt asked

Return type • 20.0/20

Predict the output • 20.0/20

Predict the output • 20.0/20

Largest Column Sum • 10:00

Largest Row or Column • 160.0/160

More About 2D Arrays • 14:47

Predict the output • 20.0/20

Problem Result

Predict the output

Send Feedback

What will be the output of the following code?

```
public static int fun(int[][] arr2d)
{
    int sum=0;
    for(int i=0;i<arr2d.length;i++)
    {
        for(int j=0;j<arr2d[i].length;j++)
        {
            sum+=arr2d[i][j];
        }
    }
    return sum;
}
public static void main(String[] args)
{
    int[][] arr = { {0,1,2,4,5}, {3,4,5,6,7}, {5,6,7,8,9} };
    System.out.println(fun(arr));
}
```

Options

This problem has only one correct answer

Attempts left: 1/2

48

56

63

72 ✓

Correct Answer

✓

Screenshot of a Java course interface on classroom.codingninjas.com. The main panel shows a list of assignments under 'Lecture 11 : 2D Arrays'. One assignment, 'Predict the output', has a score of 20.0/20. The code for this assignment is:

```
public static void fun(int[][] arr2d)
{
    for(int i=0;i<arr2d.length;i++)
    {
        for(int j=0;j<arr2d[i].length;j++)
        {
            arr2d[i][j]=2*i+j;
        }
    }
}
public static void main(String[] args)
{
    int[][] arr = new int[2][2];
    fun(arr);
    for(int i=0;i<2;i++)
}
```

The right panel displays a question titled 'Predict the output' with the instruction: 'What will be the output of the following code?'. It shows a list of options: 0 0 0 0, 0 1 2 3 (with a checkmark), 1 2 3 4, and 0 1 1 2. A red circled '12' is written next to the correct answer. The status bar at the bottom indicates '24°C Mostly cloudy' and the date '06-08-2022'.

Screenshot of the same Java course interface, showing the 'SOLUTION' tab selected. The 'Largest Row or Column' assignment is highlighted with a score of 160.0/160. The code provided is:

```
public class Solution {
    public static void findLargest(int mat[][]){
        //Your code goes here
        int rows=mat.length;
        int cols=mat[0].length;
        int max_r=Integer.MIN_VALUE;
        int pos_r=-1;
        for(int i=0;i<rows;i++){
            int sum=0;
            for(int j=0;j<cols;j++){
                sum+=mat[i][j];
            }
            if(sum>max_r){
                max_r=sum;
                pos_r=i;
            }
        }
        int max_c=Integer.MIN_VALUE;
        int pos_c=-1;
        for(int j=0;j<cols;j++){
            int sum=0;
            for(int i=0;i<rows;i++){
                sum+=mat[i][j];
            }
            if(sum>max_c){
                max_c=sum;
                pos_c=j;
            }
        }
    }
}
```

A red hand icon is drawn over the right side of the code area. The status bar at the bottom indicates '24°C Mostly cloudy' and the date '06-08-2022'.

public class Solution {

```
public static void findLargest(int mat[][]){  
    //Your code goes here  
  
    int rows=mat.length;  
  
    int col=0;  
  
  
  
  
  
    if(rows!=0){  
  
        col=mat[0].length;  
  
    }  
  
    //rows max sum  
  
    int max_r=Integer.MIN_VALUE;  
  
    int pos_r=0;  
  
    for(int i=0;i<rows;i++){  
  
        int sum=0;  
  
        for(int j=0;j<col;j++ ){  
  
            sum+=mat[i][j];  
  
        }  
  
        if(sum>max_r){  
  
            max_r=sum;  
        }  
    }  
}
```

```
pos_r=i;

}

}

int max_c=Integer.MIN_VALUE;

int pos_c=0;

for(int j=0;j<col;j++){

    int sum=0;

    for(int i=0;i<rows;i++){

        sum+=mat[i][j];

    }

    if(sum>max_c){

        max_c=sum;

        pos_c=j;

    }

}

if(max_c>max_r){

    System.out.print("column"+" "+pos_c+" "+max_c);

}else{
```

```
System.out.print("row"+ " "+pos_r+" "+max_r);

}

// if(sum!=exist){

//   System.out.println("row 0 -2147483648");

// }

}

}
```

Lecture 11 : 2D Arrays

Deadline: Aug 13, 2022, 11:59 PM

More About 2D Arrays • 14:47

Predict the output • 20.0/20

Predict the output • 20.0/20

Declare a 2-d array • 20.0/20

Assignment

Score: 480.00/480

Total Sum on the Boundaries ... • 80.0/80
1 Doubt asked

Print Like a Wave • 160.0/160

Problem

Predict the output

What will be the output of the following code?

```
public static void main (String[] args) {  
    int arr[][]={{ {1,2,3,4} , {2,4} , {3,5,7,8,9,11} } };  
    System.out.print(arr.length+arr[0].length+  
    arr[1].length+arr[2].length);  
}
```

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer.

Attempts left: 1/2

12

13

15 ✓

17

Correct Answer

14

Lecture 11 : 2D Arrays

Deadline: Aug 13, 2022, 11:59 PM

14:47

Predict the output • 20.0/20

Predict the output • 20.0/20

Declare a 2-d array • 20.0/20

Assignment

Score: 480.00/480

Total Sum on the Boundaries ... • 80.0/80
1 Doubt asked

Print Like a Wave • 160.0/160
1 Doubt asked

Print Spiral • 240.0/240

Problem

Predict the output

Send Feedback

What will be the output of the following code?

```
public static void main (String[] args) {  
    int arr[][]=new int [4][];  
    System.out.print(arr[2].length);  
}
```

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer.

Attempts left: 1/2

0

Null Pointer Exception ✓

Garbage Value

An Integer address

Correct Answer

15

Lecture 11 : 2D Arrays

Deadline
Aug 13, 2022, 11:59 PM

Predict the output • 20.0/20

Predict the output • 20.0/20

Declare a 2-d array • 20.0/20

Assignment 100.0%

Score: 480.00/480

Total Sum on the Boundaries ... 80.0/80
1 Doubt asked

Print Like a Wave • 160.0/160
1 Doubt asked

Print Spiral • 240.0/240
1 Doubt asked

Problem Result

Declare a 2-d array

Send Feedback

You have max 2 attempts to score in this question.

This problem has only one correct answer

Options

Attempts left: 1/2

A) `int a[][]=new int [4][];` ✓

B) `int a[]]=new int[4]];`

C) `int a[]]=new int[4],`

D) `int a[][]]=new int [][2];`

Correct Answer

Submit

Assignment

1. Total Sum on the Boundaries and Diagonals
2. Print Like a Wave
3. Print Spiral

1. Total Sum on the Boundaries and Diagonals

```

import java.util.*;

public class Solution {

    public static void totalSum(int[][] mat) {

        int rows = mat.length;

        if(rows==0){

            System.out.println("0");

        }

        return;

    }
}

```

```
int cols = mat[0].length;

int Sum = 0;

for (int i = 0; i < rows; i++) {

    for (int j = 0; j < cols; j++) {

        if (i == j || (i + j) == rows - 1) {

            Sum += mat[i][j];

        }

        else if (i == 0 || j == 0 || i == rows-1|| j == cols-1) {

            Sum += mat[i][j];

        }

    }

}

System.out.println(Sum);

}
```

```

1- public class Solution {
2-
3+     public static void wavePrint(int mat[][]){
4+         if(mat.length==0||mat[0].length==0){
5+             return;
6+         }
7+         for (int i = 0; i < mat[0].length; i++) {
8+             if (i % 2 == 0) {
9+                 for (int j = 0; j <=mat.length-1; j++) {
10+                     System.out.print(mat[j][i]+" ");
11+                 }
12+             } else if (i % 2 != 0) {
13+                 for (int j = mat.length - 1; j >= 0; j--) {
14+                     System.out.print(mat[j][i]+" ");
15+                 }
16+             }
17+         }
18+     }
19+ }

```

2. Print like wave

public class Solution {

```

public static void wavePrint(int mat[][]){

if(mat.length==0||mat[0].length==0){

return;

}

for (int i = 0; i < mat[0].length; i++) {

if (i % 2 == 0) {

for (int j = 0; j <=mat.length-1; j++) {

System.out.print(mat[j][i]+" ");
}
}
}
}

```

```
    }

}

else if (i % 2 != 0) {

    for (int j = mat.length - 1; j >= 0; j--) {

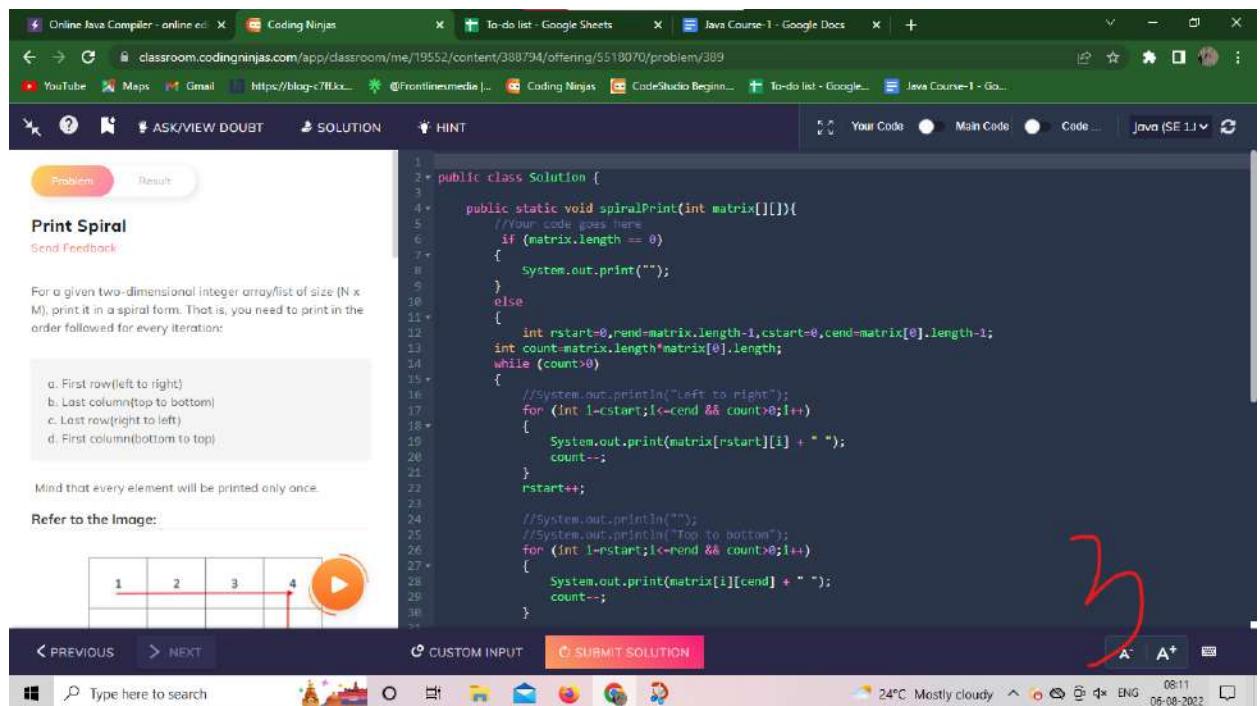
        System.out.print(mat[j][i] + " ");

    }

}

}

}
```



```

1+ public class Solution {
2+
3+     public static void spiralPrint(int matrix[][]){
4+         //Your code goes here
5+         if (matrix.length == 0)
6+         {
7+             System.out.print("");
8+         }
9+         else
10+        {
11+            int rstart=0,rend=matrix.length-1,cstart=0,cend=matrix[0].length-1;
12+            int count=matrix.length*matrix[0].length;
13+            while (count>0)
14+            {
15+                //System.out.println("Left to Right");
16+                for (int i=cstart;i<=cend && count>0;i++)
17+                [
18+                    System.out.print(matrix[rstart][i] + " ");
19+                    count--;
20+                ]
21+                rstart++;
22+
23+                //System.out.println("");
24+                //System.out.println("Top to bottom");
25+                for (int i=rstart;i<=rend && count>0;i++)
26+                [
27+                    System.out.print(matrix[i][cend] + " ");
28+                    count--;
29+                ]
30+
31+            }
32+        }
33+    }
34+
35+ }

```

For a given two-dimensional integer arraylist of size (N x M), print it in a spiral form. That is, you need to print in the order followed for every iteration:

- a. First row(left to right)
- b. Last column(top to bottom)
- c. Last row(right to left)
- d. First column(bottom to top)

Mind that every element will be printed only once.

Refer to the Image:



3. Print Spiral

```
public class Solution {
```

```
    public static void spiralPrint(int matrix[][]){
```

```
        //Your code goes here
```

```
        if (matrix.length == 0)
```

```
{
```

```
        System.out.print("");
```

```
}
```

```
    else
```

197

```
{  
  
    int rstart=0,rend=matrix.length-1,cstart=0,cend=matrix[0].length-1;  
  
    int count=matrix.length*matrix[0].length;  
  
    while (count>0)  
  
    {  
  
        //System.out.println("Left to right");  
  
        for (int i=cstart;i<=cend && count>0;i++)  
  
        {  
  
            System.out.print(matrix[rstart][i] + " ");  
  
            count--;  
  
        }  
  
        rstart++;  
  
  
        //System.out.println("");  
  
        //System.out.println("Top to bottom");  
  
        for (int i=rstart;i<=rend && count>0;i++)  
  
        {  
  
            System.out.print(matrix[i][cend] + " ");  
  
            count--;  
  
        }  
}
```

```
cend--;

//System.out.println("");

//System.out.println("Right to left");

for (int i=cend;i>=cstart && count>0;i--)

{

    System.out.print(matrix[rend][i] + " ");

    count--;

}

rend--;

//System.out.println("");

//System.out.println("Bottom to top");

for (int i=rend;i>=rstart && count>0;i--)

{

    System.out.print(matrix[i][cstart] + " ");

    count--;

}

//System.out.println("");
```

```
cstart++;  
}  
}  
}  
}
```

Lec-12:-Strings [14-Videos 25-Problems]

Lecture

1. Introduction to Strings
2. Correct Statement
3. Return type
4. More functions on string
5. Predict the output
6. Predict the output
7. String Substring function
8. Predict the output
9. Predict the output
10. Taking string input
11. Correct Statement
12. Predict the output
13. Code-Print all chars of string in separate line
14. Count Words
15. Reverse String
16. Check Palindrome Hint
17. String Palindrome
18. How strings are stored
19. Predict the output
20. Predict the output
21. Strings Immutable
22. Output problem
23. Output problem
24. String comparison
25. Predict the output
26. Print all substrings h
27. All substrings
28. Print all substrings solution
29. String vs StringBuffer
30. StringBuffer
31. Predict the output
32. Reverse Each Word
33. Reverse String Word Wise

34. Strings

Lecture 12 : Strings
Deadline: Aug 13, 2022, 11:59 PM

Score: 1170.00/1170

- Introduction to Strings • 07:34
- Correct Statement • 30.0/30
- Return type • 30.0/30
- More functions on strings • 07:40
- Predict the output • 30.0/30
- Predict the output • 30.0/30
- String Substring function • 05:16

Correct Statement

Select the correct statement(s) about strings.

Options Attempts left: 1/2

This problem may have one or more correct answers

- String is a non-primitive datatype. ✓
- The length() function returns an integer value. ✓
- The maximum length of String in java is 2,14,74,83,647. ✓
- Strings can store spaces as well. ✓

Solution Description

The String class length method returns an int, the maximum length that would be returned by the method would be Integer.MAX_VALUE, which is 2³¹ - 1, which is equivalent to 2,14,74,83,647.

Lecture 12 : Strings
Deadline: Aug 13, 2022, 11:59 PM

07:34

- Correct Statement • 30.0/30
- Return type • 30.0/30
- More functions on strings • 07:40
- Predict the output • 30.0/30
- Predict the output • 30.0/30
- String Substring function • 05:16
- Predict the output • 30.0/30

Return type

What is the return type of charAt() function in String class?

Options Attempts left: 1/2

This problem has only one correct answer

- int
- char ✓
- float
- void

Correct Answer

✓

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

More functions on strings • 07:40

Predict the output • 30.0/30

Predict the output • 30.0/30

String Substring function • 05:16

Predict the output • 30.0/30

Predict the output • 30.0/30

Taking string input • 06:21

Problem Result

Predict the output

Send Feedback

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

Attempts left: 1/2

String a = "abcd";
String b = "abcd";
System.out.println(a.compareTo(b));

Correct Answer

Solution Description

The compareTo function returns the difference of length of strings when they are not equal. In case if the lengths are equal, then it returns the non-zero difference in ASCII values starting from 0th index to (n-1)st index and if all the indices of string are same, it returns 0.

PREVIOUS NEXT SUBMIT

28°C Cloudy 08:46 ENG 06-08-2022

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

07:40

Predict the output • 30.0/30

Predict the output • 30.0/30

String Substring function • 05:16

Predict the output • 30.0/30

Predict the output • 30.0/30

Taking string input • 06:21

Correct Statement • 1 Doubt asked 30.0/30

Predict the output

Send Feedback

Answer

ninjascodingninjas ✓

Correct Answer

public static void main (String[] args) {
 String a="coding";b="ninjas";
 if(a.contains("ing"))
 {
 a+=b;
 }
 else
 {
 b+="ing";
 }
 System.out.print(b+a);
}

PREVIOUS NEXT SUBMIT

28°C Cloudy 08:46 ENG 06-08-2022

Lecture 12 : Strings
Deadline
Aug 13, 2022, 11:59 PM

String Substring function • 05:16

Predict the output • 30.0/30

Predict the output • 30.0/30

Taking string input • 06:21

Correct Statement • 30.0/30
1 Doubt asked

Predict the output • 30.0/30

Code-Print all chars of string i... • 02:12

Predict the output
Send Feedback

What will be the output of the following code?

```
String a="coding";
for(int i=2;i<4;i++)
{
    System.out.print(a.substring(i));
}
```

Answer

dinging ✓

Correct Answer.

Solution Description

For $i=2$, the substring will be `ding` and for $i=3$, it will be `ing`.

6

Lecture 12 : Strings
Deadline
Aug 13, 2022, 11:59 PM

05:16

Predict the output • 30.0/30

Predict the output • 30.0/30

Taking string input • 06:21

Correct Statement • 30.0/30
1 Doubt asked

Predict the output • 30.0/30

Code-Print all chars of string i... • 02:12

Count Words • 120.0/120
1 Doubt asked

Predict the output
Send Feedback

What will be the output of the following code?

```
String a="coding";
for(int i=2;i<5;i++)
{
    System.out.print(a.substring(i-2,i+1));
}
```

Answer

cododidin ✓

Correct Answer.

6

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

Topics

Problem Result

Correct Statement

Send Feedback

Select the correct statement.

Options

You have max 2 attempts to score in this question. Attempts left: 0/2

This problem may have one or more correct answers

System.in is Scanner represents input Stream. ✓

If we want to read from a file then we can pass filename instead of System.in ✓

.next() reads till a '\n' is encountered.

.nextLine() reads till '\n' is encountered ✓

Correct Answer:

Submit

PREVIOUS NEXT

28°C Cloudy 08:47 06-08-2022

Type here to search

Online Java Compiler - online To-do list - Google Sheets Java Course-1 - Google Docs Coding Ninjas WhatsApp

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

Topics

Problem Result

Predict the output

Send Feedback

What will be the output of the following code if the input is "java is an object-oriented language":

```
public static void main (String[] args) {  
    Scanner s=new Scanner(System.in);  
    String str1=s.nextLine();  
    String str2=s.nextLine();  
    String str3=str2+str1;  
    System.out.println(str3);  
}
```

Options

You have max 2 attempts to score in this question. Attempts left: 0/2

This problem has only one correct answer

java is an object-oriented language

is an object-oriented language java

java is an object oriented language

is an object-oriented language java ✓

Correct Answer:

Submit

PREVIOUS NEXT

28°C Cloudy 08:48 06-08-2022

Type here to search

Online Java Compiler - online To-do list - Google Sheets Java Course-1 - Google Docs Coding Ninjas WhatsApp

The screenshot shows a Windows desktop with a browser window open to a Java course page on Coding Ninjas. The browser tabs include 'Online Java Compiler - online...', 'To-do list - Google Sheets', 'Java Course-1 - Google Docs', 'Coding Ninjas', and 'WhatsApp'. The main content area displays a lecture titled 'Lecture 12 : Strings' with a deadline of 'Aug 13, 2022, 11:59 PM'. A sidebar lists several exercises: 'Code-Print all chars of string.l...', 'Count Words', 'Reverse String', 'Check Palindrome Hint', 'String Palindrome', 'How strings are stored?', and 'Predict the output'. The 'Count Words' exercise is selected, showing a problem statement: 'For a given input string(str), find and return the total number of words present in it.' It assumes two words are separated by a single space and no leading/trailing spaces. The input format is described as a single line without spaces, and the output format is a single integer representing the word count. On the right, the code editor shows the following Java code:

```
1- public class Solution {  
2-     public static int countWords(String str) {  
3-         //Your code goes here  
4-         if(str.length()==0)  
5-             return 0;  
6-         int c=1;  
7-           
8-         for(int i=0;i<str.length();i++){  
9-             if(str.charAt(i)==' ') {  
10-                 c++;  
11-             }  
12-         }  
13-         return c;  
14-     }  
15- }
```

public class Solution {

 public static int countWords(String str) {

 //Your code goes here

 if(str.length() == 0)

 return 0;

 int c = 1;

 for(int i = 0; i < str.length(); i++) {

 if(str.charAt(i) == ' ') {

```

C++;

}

}

return c;

}

}

```

The screenshot shows a Windows desktop environment with a browser window open to a Java course page. The browser tabs include 'Online Java Compiler - online...', 'To-do list - Google Sheets', 'Java Course-1 - Google Docs', 'Coding Ninjas', 'WhatsApp', and others. The main content area displays a lecture titled 'Lecture 12 : Strings' with a deadline of 'Aug 13, 2022, 11:59 PM'. Below the lecture title, there are several video thumbnail links: 'Check Palindrome Hint', 'String Palindrome' (marked as 1 Doubt asked), 'How strings are stored?', 'Predict the output', 'Predict the output', 'Strings Immutability', and 'Output problem'. To the right of the lecture, a 'Problem' section titled 'String Palindrome' is shown. It asks to determine if a string is a palindrome, considering only alphanumeric characters. A 'Palindrome' definition is provided: 'A palindrome is a word, number, phrase, or other sequences of characters which read the same backwards and forwards.' An 'Example' is given with the input 'malyalam', noting it reads the same forward and backward. A code editor on the right contains the following Java code:

```

1 public class Solution {
2     public static boolean isPalindrome(String str) {
3         //Your code goes here
4         int n=str.length();
5         int i=0;
6         int j=n-1;
7
8         while(i<j){
9             if(str.charAt(i)!=str.charAt(j)){
10                 return false;
11             }
12             else{
13                 i++;
14                 j--;
15             }
16         }
17         return true;
18     }
19 }
20
21
22
23
24
25

```

A red circle highlights the closing brace of the while loop. At the bottom of the code editor, there are buttons for 'PREVIOUS', 'NEXT', 'CUSTOM INPUT', and 'SUBMIT SOLUTION'.

```
public class Solution {
```

```
    public static boolean isPalindrome(String str) {
```

//Your code goes here

```
int n=str.length();
```

```
int i=0;
```

```
int j=n-1;
```

```
while(i<j){
```

```
    if(str.charAt(i)!=str.charAt(j))
```

```
    {
```

```
        return false;
```

```
    }
```

```
    else{
```

```
        i++;
```

```
        j--;
```

```
    }
```

```
}
```

```
    return true;
```

```
}
```

{}

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

1 Doubt asked

- How strings are stored? • 10:15
- Predict the output • 30.0/30
- Predict the output • 30.0/30
- Strings Immutability • 09:52
- Output problem • 30.0/30
- Output problem • 30.0/30
- String comparison • 06:23

Predict the output

What will be the output of the following code?

```
public static void main (String[] args) {
    String str1="abc";
    String str2=new String("abc");
    System.out.println(str1==str2);
}
```

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer.

true ✓

false ✓

Correct Answer

Attempts left: 1/2

28°C Cloudy 08:49 06-08-2022

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

10:15

- Predict the output • 30.0/30
- Predict the output • 30.0/30
- Strings Immutability • 09:52
- Output problem • 30.0/30
- Output problem • 30.0/30
- String comparison • 06:23
- Predict the output • 30.0/30

Predict the output

What will be the output of the following code?

```
public static void main (String[] args) {
    String str1="abc";
    String str2=new String("abc");
    System.out.println(str1.equals(str2));
}
```

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer.

true ✓

false

Correct Answer

Attempts left: 1/2

Waiting for p.webengage.com...

28°C Cloudy 08:50 06-08-2022

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

Strings Immutability 09:52

Output problem 30.0/30

Output problem 30.0/30

String comparison 06:23

Predict the output 30.0/30

Print all substrings hint 10:10

All substrings 240.0/240

Problem Result

Output problem

Send Feedback

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

true

false ✓

Correct Answer

Attempts left: 1/2

13

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

09:52

Output problem 30.0/30

Output problem 30.0/30

String comparison 06:23

Predict the output 30.0/30

Print all substrings hint 10:10

All substrings 240.0/240

Print all substrings solution 11:57

Problem Result

Output problem

Send Feedback

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

true

false ✓

Correct Answer

Attempts left: 1/2

14

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

String comparison • 08:23

Predict the output • 30.0/30

Print all substrings hint 10:10

All substrings • 240.0/240

Print all substrings solution • 11:57

String vs StringBuffer • 04:43

Stringbuffer • 30.0/30

Waiting for pwebergag... Type here to search

Problem Result

Predict the output

Send Feedback

What will be the output of the following code?

```
public static void main (String[] args) {  
    String str1="abc";  
    String str2="a";  
    System.out.println(str1.contains(str2));  
}
```

Options

This problem has only one correct answer

true ✓

false

Correct Answer

15

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

Print all substrings hint 10:10

All substrings • 240.0/240

Print all substrings solution • 11:57

String vs StringBuffer • 04:43

Stringbuffer • 30.0/30

Predict the output • 30.0/30

Reverse Each Word • 11:11

Problem Result

All substrings

Send Feedback

For a given input string(str), write a function to print all the possible substrings.

Substring

A substring is a contiguous sequence of characters within a string.
Example: "cod" is a substring of "coding". Whereas, "cdng" is not as the characters taken are not contiguous.

Input Format:

The first and only line of input contains a string without any leading and trailing spaces. All the characters in the string would be in lower case.

```
public class Solution {  
    public static void printSubstrings(String str) {  
        //Your code goes here  
        int n=str.length();  
        String sub="";  
        for(int j=0;j<n;j++)  
        {  
            for(int i=j;i<n;i++){  
                sub+=str.charAt(i);  
                System.out.println(sub);  
            }  
            sub="";  
        }  
    }  
}
```

CUSTOM INPUT

SUBMIT SOLUTION

15

public class Solution {

```
public static void printSubstrings(String str) {  
    //Your code goes here  
  
    int n=str.length();  
  
    String sub="";  
  
    for(int j=0;j<=n;j++)  
  
    {  
  
        for(int i=j;i<n;i++){  
  
            sub+=str.charAt(i);  
  
            System.out.println(sub);  
  
        }  
  
        sub="";  
  
    }  
  
}
```

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

String vs StringBuffer 04:43

Stringbuffer 30.0/30

Predict the output 30.0/30

Reverse Each Word 11:11

Reverse String Wordwise 240.0/240 1 Doubt asked

Strings 30.0/30

Would the StringBuffer store its string in string pool?

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer.

Yes

No ✓

Correct Answer

Assignment

PREVIOUS NEXT SUBMIT

28°C Cloudy 08:52 06-08-2022

17

Lecture 12 : Strings

Deadline Aug 13, 2022, 11:59 PM

Stringbuffer 04:43

Predict the output 30.0/30

Reverse Each Word 11:11

Reverse String Wordwise 240.0/240 1 Doubt asked

Strings 30.0/30

What will be the output of the following code:

```
public static void main (String[] args) {  
    StringBuffer str1=new StringBuffer("");  
    for(int i=0;i<5;i++)  
    {  
        str1.append((char)(‘a’+i));  
    }  
    System.out.println(str1);  
}
```

Options

You have max 2 attempts to score in this question.

This problem has only one correct answer.

979899100101

abcde ✓

no output

error

Correct Answer

Assignment

Score 960.00/960

Check Permutation 120.0/120

PREVIOUS NEXT SUBMIT

28°C Cloudy 08:52 06-08-2022

18

Lecture 12 : Strings

Deadline
Aug 13, 2022, 11:59 PM

Reverse Each Word • 11:11
Reverse String Wordwise • 1 Doubt asked 240.0/240
Strings •

Assignment 100.0%
Score: 960.00/960
Check Permutation • 1 Doubt asked 120.0/120
Remove Consecutive Duplicates • 1 Doubt asked 120.0/120
Reverse Each Word • 240.0/240

Reverse String Wordwise

Send Feedback

Reverse the given string word wise. That is, the last word in given string should come at 1st place, last second word at 2nd place and so on. Individual words should remain as it is.

Input format :
String in a single line

Output format :
Word wise reversed string in a single line

Constraints :
 $0 \leq |S| \leq 10^4$
where $|S|$ represents the length of string, S.

1 public class Solution {
2 public static String reverseWordWise(String input) {
3 String output = "";
4 int startIndex = 0;
5
6 for(int i = 0; i < input.length(); i++){
7 if(input.charAt(i) == ' '){
8 output = input.substring(startIndex,i) + " " + output;
9 startIndex = i+1;
10 }
11 }
12 output = input.substring(startIndex, input.length());
13 return output;
14 }
15 //
16 //
17 //
18 //
19 //
20 //
21 //
22 //
23 //
24 //
25 //
26 //
27 //
28 //
29 //
30 //
31}

PREVIOUS NEXT CUSTOM INPUT SUBMIT SOLUTION

```
public class Solution {
```

```
    public static String reverseWordWise(String input) {
```

```
        String output = "";
```

```
        int startIndex = 0;
```

```
        for(int i = 0; i < input.length(); i++){
```

```
            if(input.charAt(i) == ' '){
```

```
                output = input.substring(startIndex,i) + " " + output;
```

```
                startIndex = i+1;
```

```
}
```

```
    }  
  
    output = input.substring(startIndex, input.length()) + " " + output;  
  
    return output;  
  
}  
  
}
```

Assignment

1. Check Permutation
2. Remove Consecutive Duplicates
3. Reverse Each
4. Remove character
5. Highest Occurring Character
6. Compress the String

Lecture 12 : Strings
Deadline
Aug 13, 2022, 11:59 PM

Assignment
Score: 960.00/960

Check Permutation 120.0/120
1 Doubt asked

Remove Consecutive Duplicates 120.0/120
1 Doubt asked

Reverse Each Word 240.0/240
1 Doubt asked

Remove character 120.0/120

Highest Occuring Character 120.0/120
1 Doubt asked

Compress the String 240.0/240

Check Permutation 120.0/120
1 Doubt asked

Permutations of each other

Two strings are said to be a permutation of each other when either of the string's characters can be rearranged so that it becomes identical to the other one.

Example:
str1= "simrtg"
str2 = "string"

The character of the first string(str1) can be rearranged to form str2 and hence we can say that the given strings are a permutation of each other.

```

1 public class Solution {
2     public static String arrangeString(String inputString) {
3         int i,j;
4         String str = "";
5         j = 97;
6         while(j < 122) {
7             i = 0;
8             do {
9                 if((int)inputString.charAt(i) == j) {
10                     str = str + (char)j;
11                 }
12                 i++;
13             }while(i < inputString.length());
14             j++;
15         }
16         return str;
17     }
18
19     public static boolean isPermutation(String str1, String s2) {
20         //Your code goes here
21         boolean result = true;
22         if(str1.length() != str2.length()) {
23             result = false;
24         } else {
25             String s1 = arrangeString(str1);
26             String s2 = arrangeString(str2);
27             for(int i = 0;i < s1.length();i++) {
28                 if(s1.charAt(i) != s2.charAt(i)) {
29                     result = false;
30                 }
31             }
32         }
33         return result;
34     }
35 }
```

PREVIOUS NEXT CUSTOM INPUT SUBMIT SOLUTION

Lecture 12 : Strings
Deadline
Aug 13, 2022, 11:59 PM

Assignment
Score: 960.00/960

Check Permutation 120.0/120
1 Doubt asked

Remove Consecutive Duplicates 120.0/120
1 Doubt asked

Reverse Each Word 240.0/240
1 Doubt asked

Remove character 120.0/120

Highest Occuring Character 120.0/120
1 Doubt asked

Compress the String 240.0/240

Remove Consecutive Duplicates

For a given string(str), remove all the consecutive duplicate characters.

Example:

Input String: "aaaa"
Expected Output: "a"

Input String: "abbbcc"
Expected Output: "abc"

Input Format:

The first and only line of input contains a string without any leading and trailing spaces. All the characters in the string would be in lower case.

```

1 // Import Java.util.Arrays
2 public class Solution {
3     public static String removeConsecutiveDuplicates(String str) {
4
5         String res="";
6         char ch=str.charAt(0);
7         res+=ch;
8         if(str.length()!=0){
9             for(int i=1;i<str.length();i++){
10
11                 if(str.charAt(i)==ch){
12                     else{
13                         res+=str.charAt(i);
14                     }
15                 }
16                 ch=str.charAt(i);
17             }
18         }
19         return res;
20     }
21
22 }
```

PREVIOUS NEXT CUSTOM INPUT SUBMIT SOLUTION

2.Remove COnsecutive Duplicates:

```
// import java.util.Arrays;

public class Solution {

    public static String removeConsecutiveDuplicates(String str) {

        String res="";
        char ch=str.charAt(0);
        res+=ch;
        if(str.length()!=0){
            for(int i=1;i<str.length();i++){
                if(str.charAt(i)==ch);
                else{

```



```
    res+=str.charAt(i);
```

```
}
```

```
    ch=str.charAt(i);
```

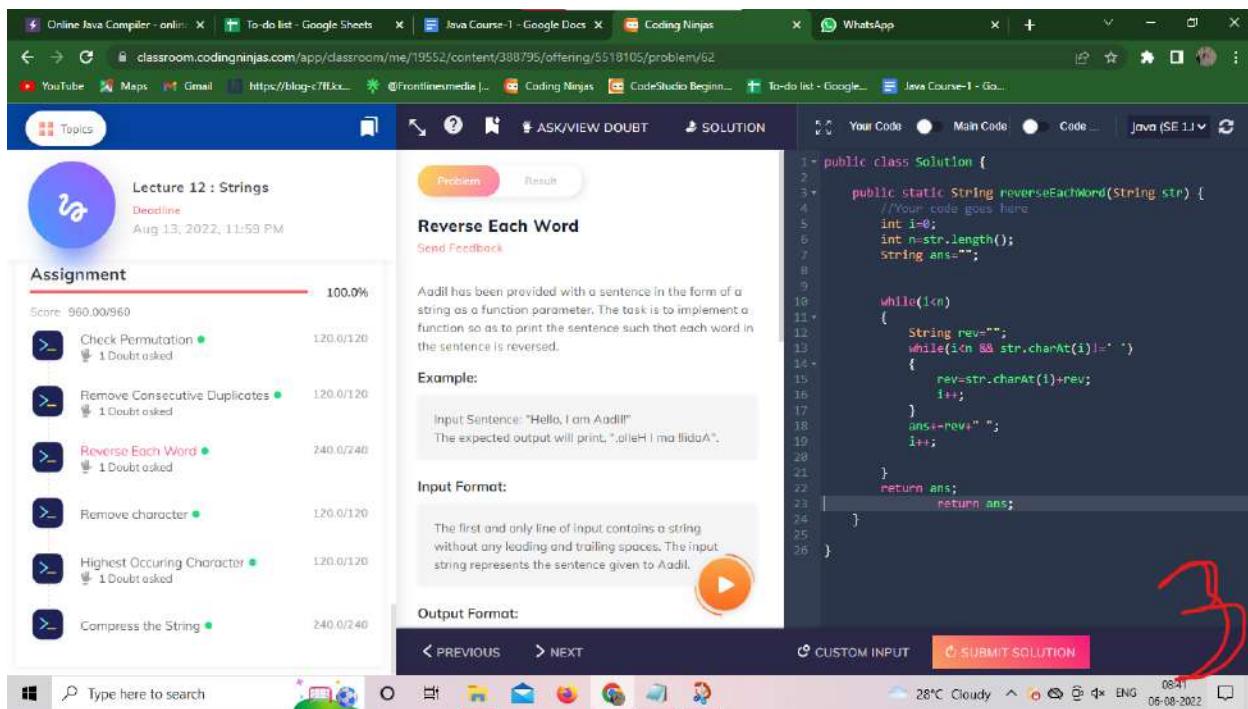
```
}
```

```
}
```

```
return res;
```

```
}
```

```
}
```



3. Reverse Each Word

```
public class Solution {
```

```
    public static String reverseEachWord(String str) {
```

```
        //Your code goes here
```

```
        int i=0;
```

```
        int n=str.length();
```

```
        String ans="";
```

```
while(i<n)

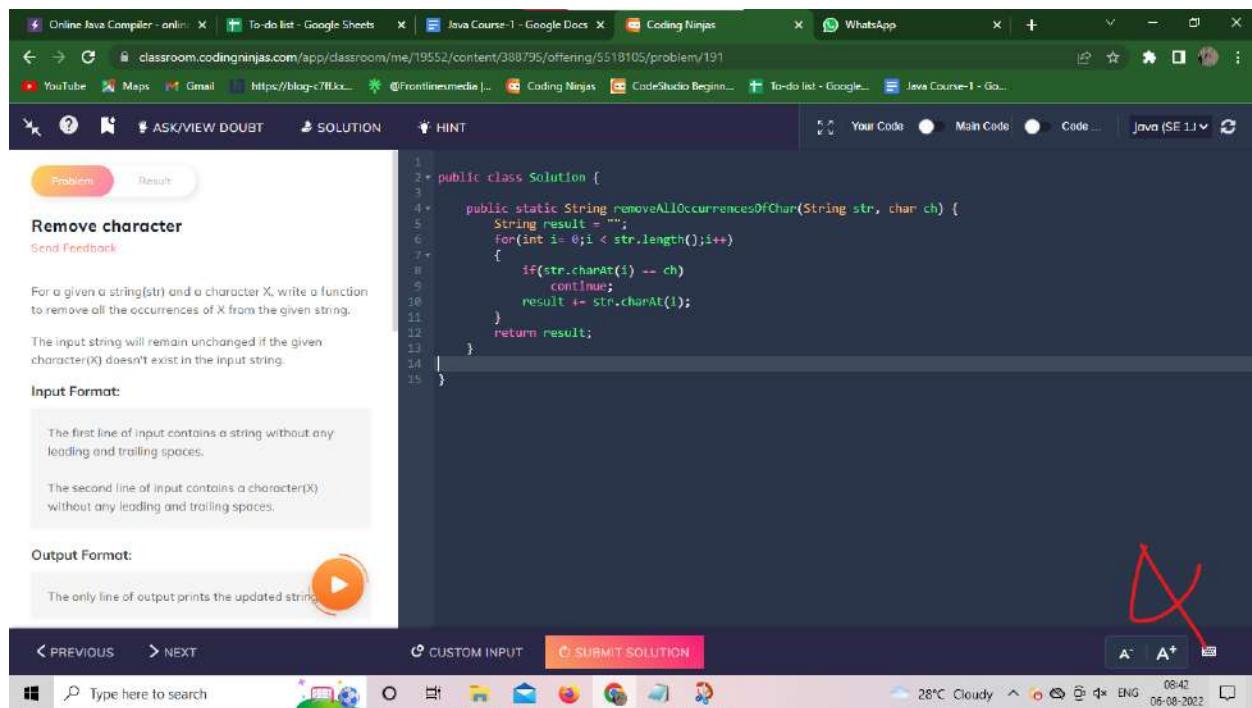
{
    String rev="";
    while(i<n && str.charAt(i)!=' ')
    {
        rev=str.charAt(i)+rev;
        i++;
    }
    ans+=rev+" ";
    i++;
}

return ans;
```

```
    return ans;
```

```
}
```

```
}
```



The screenshot shows a Java code editor window with the following details:

- Title Bar:** Online Java Compiler - online, To-do list - Google Sheets, Java Course-1 - Google Docs, Coding Ninjas, WhatsApp.
- Toolbar:** ASK/VIEW DOUBT, SOLUTION, HINT.
- Code Area:**

```
1  public class Solution {
2
3      public static String removeAllOccurrencesOfChar(String str, char ch) {
4          String result = "";
5          for(int i= 0;i < str.length();i++) {
6              if(str.charAt(i) == ch)
7                  continue;
8              result += str.charAt(i);
9          }
10         return result;
11     }
12 }
```
- Problem Area:** Remove character, Send Feedback.
- Description:** For a given a string(str) and a character X, write a function to remove all the occurrences of X from the given string. The input string will remain unchanged if the given character(X) doesn't exist in the input string.
- Input Format:** The first line of input contains a string without any leading and trailing spaces. The second line of input contains a character(X) without any leading and trailing spaces.
- Output Format:** The only line of output prints the updated string.
- Buttons:** < PREVIOUS, > NEXT, CUSTOM INPUT, SUBMIT SOLUTION, A-, A+.
- System Status:** 28°C Cloudy, 08:42, ENG, 06-08-2022.

4. Remove Character

```
public class Solution {
```

```
public static String removeAllOccurrencesOfChar(String str, char ch) {  
  
    String result = "";  
  
    for(int i= 0;i < str.length();i++)  
  
    {  
  
        if(str.charAt(i) == ch)  
  
            continue;  
  
        result += str.charAt(i);  
  
    }  
  
    return result;  
  
}  
  
}
```

The screenshot shows a Java code editor with the following details:

- Title Bar:** Online Java Compiler - online, To-do list - Google Sheets, Java Course-1 - Google Docs, Coding Ninjas, WhatsApp.
- Code Area:** A Java code snippet for finding the highest occurring character in a string. The code uses an array `freq` of size 256 to count character frequencies and then iterates through it to find the maximum frequency and its corresponding index.
- Left Panel:** Contains sections for "Highest Occuring Character", "Send Feedback", "Example", and "Consider".
- Bottom Panel:** Includes buttons for "PREVIOUS", "NEXT", "CUSTOM INPUT", "SUBMIT SOLUTION", and a search bar.
- System Status:** Shows weather (28°C Cloudy), battery level, and system time (08:43 06-08-2022).

5. Highest Occuring character

```
public class Solution {
```

```
    public static char highestOccuringChar(String str)
```

```
{
```

```
    int freq[] = new int[256];
```

```
    for (int i = 0; i < str.length(); i++)
```

```
{  
  
    char ch=str.charAt(i);  
  
    freq[ch]++;  
  
}  
  
int max=Integer.MIN_VALUE;  
  
int index=0;  
  
for(int i=0;i<256;i++)  
  
{  
  
    if(freq[i]>max)  
  
    {  
  
        max=freq[i];  
  
        index=i;  
  
    }  
  
}  
  
//char ch=(char)index;
```

```

        return (char)(index);

    }

}

```

```

1 public class Solution {
2     public static String getCompressedString(String str) {
3         int i, c = 1, j = 0;
4         String result = "";
5         for(i = 0; i < str.length() - 1; i++) {
6             if(str.charAt(i+1) == str.charAt(i)) {
7                 c++;
8             }
9             else {
10                 if(c != 1)
11                     result = result + str.charAt(i) + c;
12                 else
13                     result = result + str.charAt(i);
14                 c = 1;
15             }
16         }
17         if(c != 1)
18             result = result + str.charAt(i) + c;
19         else
20             result = result + str.charAt(i);
21         return result;
22     }
23
24
25 }

```

Compress the String

Send Feedback

Write a program to do basic string compression. For a character which is consecutively repeated more than once, replace consecutive duplicate occurrences with the count of repetitions.

Example:

If a string has 'x' repeated 5 times, replace this "xxxxx" with "x5".

The string is compressed only when the repeated character count is more than 1.

Note:

Consecutive count of every character in the input string is less than or equal to 9.

6. Compress the string

```

public class Solution {

    public static String getCompressedString(String str) {

```

```
int i,c = 1,j = 0;
```

```
String result = "";
```

```
for(i = 0;i < str.length() - 1;i++) {
```

```
    if(str.charAt(i+1) == str.charAt(i)) {
```

```
        c++;
```

```
}
```

```
    else {
```

```
        if(c != 1)
```

```
            result = result + str.charAt(i) + c;
```

```
        else
```

```
            result = result + str.charAt(i);
```

```
        c = 1;
```

```
}
```

```
}
```

```
    if(c != 1)
```

```
result = result + str.charAt(i) + c;
```

```
else
```

```
    result = result + str.charAt(i);
```

```
return result;
```

```
}
```

```
}
```

Lec-13:-Time Complexity [8-Videos 16-Problems]

Lecture

1. What is Complexity Analysis?
2. Complexity
3. Theoretical Analysis
4. Number of operations
5. Number of operations
6. Big O notation - Iterative Linear
7. Time complexity of a code
8. Time complexity of a code
9. Theoretical Analysis - Iterative Non Linear
10. Time complexity
11. Time complexity of a code
12. Time complexity of a code
13. Merging two Sorted array
14. Array intersection Intro
15. Array Intersection
16. Array intersection Optimal Solution
17. Equilibrium Index Intro
18. Array Equilibrium Index
19. Equilibrium Index Optimal Solution

Lecture 13 : Time Complexity

Deadline: Aug 13, 2022, 11:59 PM

Score: 400.00/420

What is Complexity Analysis? • 04:55

Complexity • 20.0/20

Theoretical Analysis • 09:26

Number of operations • 20.0/20

Number of operations • 20.0/20

Big O notation - Iterative Linear • 13:37

Time complexity of a code • 20.0/20

Complexity

Send Feedback

Which complexity of an algorithm quantifies the amount of memory taken by an algorithm.

Options

This problem has only one correct answer

Time complexity

Space complexity ✓

Correct Answer

Lecture 13 : Time Complexity

Deadline: Aug 13, 2022, 11:59 PM

Score: 400.00/420

What is Complexity Analysis? • 04:55

Complexity • 20.0/20

Theoretical Analysis • 09:26

Number of operations • 20.0/20

Number of operations • 20.0/20

Big O notation - Iterative Linear • 13:37

Number of operations

Send Feedback

What are the number of operations for the following function?

```
public static void func(int n)
{
    int sum=0;
    for(int i=2;i<n;i+=2)
        sum+=i;
    System.out.println(sum);
}
```

Options

This problem has only one correct answer

k1+k2(n) ✓

k1+k2

k1+k2(n^2)

k1+k2(logn)

Correct Answer

Lecture 13 : Time Complexity
Deadline Aug 13, 2022, 11:59 PM

- Number of operations 20.0/20
- Number of operations 20.0/20
- Big O notation - Iterative Linear 13:37
- Time complexity of a code 20.0/20
- Time complexity of a code 0/20
- Theoretical Analysis - Iterative... 13:28
- Time complexity 20.0/20

Number of operations

What are the number of operations for the following function?

```
public static void func(int n)
{
    int sum=0;
    for(int i=1;i<n;i++)
        sum+=i;
    System.out.println(sum);
}
```

Options

You have max 2 attempts to score in this question. Attempts left: 1/2

This problem has only one correct answer

$k_1+k_2(n)$

$k_1+k_2(\log n)$

$k_1+k_2(n^2)$

$k_1(n)+k_2(\log n)$

Correct Answer

Lecture 13 : Time Complexity
Deadline Aug 13, 2022, 11:59 PM

- Big O notation - Iterative Linear 13:37
- Time complexity of a code 20.0/20
- Time complexity of a code 0/20
- Theoretical Analysis - Iterative... 13:28
- Time complexity 20.0/20
- Time complexity of a code 20.0/20
- Time complexity of a code 20.0/20

Time complexity of a code

What will be the Time Complexity of following code in terms of ' n ' ?

```
public static void func(int n)
{
    int sum=0;
    for(int i=1;i<n;i++)
    {
        for(int j=i;j<n;j++)
        {
            sum+=i;
        }
    }
    System.out.println(sum);
}
```

Options

You have max 2 attempts to score in this question. Attempts left: 1/2

This problem has only one correct answer

$O(n)$

$O(n^2)$

$O(n^3)$

$O(n^4)$

Correct Answer

Lecture 13 : Time Complexity

Deadline: Aug 13, 2022, 11:59 PM

13:37

Time complexity of a code • 20.0/20

Time complexity of a code • 0/20

Theoretical Analysis - Iterative... • 13:28

Time complexity • 20.0/20

Time complexity of a code • 20.0/20

Time complexity of a code • 20.0/20

Merging two Sorted arrays • 20.0/20

Time complexity of a code

What will be the Time Complexity of following code in terms of ' n '?

```
public static void function(n)
{
    int sum=0;
    for(int i=1;i<=n;i++)
    {
        for(int j=1;j<n;j++)
        {
            sum+=i;
        }
    }
    System.out.println(sum);
}
```

You have max 2 attempts to score in this question.

Options: $O(n)$, $O(n^2)$, $O(n^3)$, $O(n^4)$

The solution to this problem has been viewed.

Lecture 13 : Time Complexity

Deadline: Aug 13, 2022, 11:59 PM

13:28

Theoretical Analysis - Iterative... •

Time complexity • 20.0/20

Time complexity of a code • 20.0/20

Time complexity of a code • 20.0/20

Merging two Sorted arrays • 20.0/20

Array intersection Intro • 09:09

Array Intersection • 160.0/160 1 Doubt asked

Time complexity

Choose the correct option.

A) Linear Search	1. $O(\log n)$
B) Bubble sort	2. $O(n)$
C) Binary Search	3. $O(n^2)$

You have max 2 attempts to score in this question.

Options: A->1 B->3 C->2, A->3 B->2 C->1, A->3 B->1 C->2, A->2 B->3 C->1

Correct Answer:

Lecture 13 : Time Complexity

Deadline: Aug 13, 2022, 11:59 PM

13:28

Time complexity • 20.0/20

Time complexity of a code • 20.0/20

Time complexity of a code • 20.0/20

Merging two Sorted arrays • 20.0/20

Array intersection Intro • 09:09

Array Intersection • 160.0/160
1 Doubt asked

Array intersection Optimal Sol... • 09:36

Time complexity of a code

What will be the Time Complexity of following code in terms of 'n' ?

```
public static void func(int n)
{
    int sum=0;
    for(int i=1;i<n;i++)
    {
        for(int j=1;j<=i;j++)
        {
            sum+=j;
        }
    }
    System.out.println(sum);
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

$O(n)$

$O(n^2)$

$O(n\log n)$

$O(n^3)$

Correct Answer

PREVIOUS NEXT SUBMIT

Type here to search

26°C Mostly cloudy 16:19 ENG 11-08-2022

Lecture 13 : Time Complexity

Deadline: Aug 13, 2022, 11:59 PM

Time complexity • 20.0/20

Time complexity of a code • 20.0/20

Merging two Sorted arrays • 20.0/20

Array intersection Intro • 09:09

Array Intersection • 160.0/160
1 Doubt asked

Array intersection Optimal Sol... • 09:36

Equilibrium Index Intro • 05:39

Time complexity of a code

What will be the Time Complexity of following code in terms of 'n' ?

```
public static void func(int n)
{
    int sum=0;
    for(int i=1;i<n/2)
    {
        sum+=i;
    }
    System.out.println(sum);
}
```

You have max 2 attempts to score in this question.

Options

This problem has only one correct answer

$O(\log n \text{base } 2)$

$O(n)$

$O(n\log n)$

$O(n^2)$

Correct Answer

PREVIOUS NEXT SUBMIT

Type here to search

26°C Mostly cloudy 16:20 ENG 11-08-2022

Lecture 13 : Time Complexity

Deadline: Aug 13, 2022, 11:59 PM

Merging two Sorted arrays

What is the time complexity for merging two sorted arrays?

- size of arrays are n and m.

Options

This problem has only one correct answer

Attempts left: 1/2

Correct Answer

Array Intersection

You have been given two integer arrays/lists(ARR1 and ARR2) of size N and M, respectively. You need to print their intersection. An intersection for this problem can be defined when both the arrays/lists contain a particular value or to put it in other words, when there is a common value that exists in both the arrays/lists.

Note :

Input arrays/lists can contain duplicate elements.

The intersection elements printed would be in ascending order.

Input format:

```

import java.util.*;
public class Solution {
    public static void intersection(int[] arr1, int[] arr2) {
        int n1 = arr1.length;
        int n2 = arr2.length;
        int i=0,j=0;
        //arr1 count = n1
        Arrays.sort(arr1);
        boolean visited[] = new boolean[n2];
        while (i<n1) {
            j=0;
            while (j<n2) {
                if (arr1[i] == arr2[j] && visited[j]==false) {
                    visited[j] = true;
                    System.out.print(arr1[i] + " ");
                    break;
                }
                j++;
            }
            i++;
        }
    }
}

```

CUSTOM INPUT

SUBMIT SOLUTION

```

import java.util.*;

public class Solution {

```

```
public static void intersection(int[] arr1, int[] arr2) {  
  
    int n1 = arr1.length;  
  
    int n2 = arr2.length;  
  
    int i=0,j=0;  
  
    // int count = 0;  
  
    Arrays.sort(arr1);  
  
    boolean visited[] = new boolean[n2];  
  
    while (i<n1)  
  
    {  
  
        j=0;  
  
        while (j<n2)  
  
        {  
  
            if (arr1[i] == arr2[j] && visited[j]==false)  
  
            {  
  
                visited[j] = true;  
  
                System.out.print(arr1[i] + " ");  
  
                break;  
  
            }  
  
            j++;  
  
        }  
    }  
}
```

```

    i++;
}

}

}

```

```
}
```

Lecture 13 : Time Complexity
Deadline
Aug 13, 2022, 11:59 PM

Assignment 100.0%
Score: 640.00/640

Problem

Array Equilibrium Index

Send Feedback

For a given array/list(ARR) of size 'N,' find and return the 'Equilibrium Index' of the array/list.

Equilibrium Index of an array/list is an index 'i' such that the sum of elements at indices [0 to (i - 1)] is equal to the sum of elements at indices [i + 1] to [N-1]. One thing to note here is, the item at the index 'i' is not included in either part.

If more than one equilibrium indices are present, then the index appearing first in left to right fashion should be returned. Negative one(-1) if no such index is present.

Example:

Let's consider an array/list Arr = [2, 3, 10, -10, 4, 2, -1] of size, N = 7;

There exist three equilibrium indices: one at 2, another at 3, and one at 5.

Custom Input

Submit Solution

```

1 public class Solution {
2     public static int arrayEquilibriumIndex(int[] arr){
3         int i, j;
4         int ls, rs;
5         int n=arr.length;
6         for (i = 0; i < n; ++i)
7         {
8             ls = 0;
9             for (j = 0; j < i; j++)
10                 ls += arr[j];
11             rs = 0;
12             for (j = i + 1; j < n; j++)
13                 rs += arr[j];
14             if (ls == rs)
15                 return i;
16         }
17     }
18     return -1;
19 }
20
21

```

```
public class Solution {
```

```
    public static int arrayEquilibriumIndex(int[] arr){
```

```
        int i, j;
```

```
        int ls, rs;
```

```
int n=arr.length;

for (i = 0; i < n; ++i)

{

ls = 0;

for (j = 0; j < i; j++)

    ls += arr[j];

rs = 0;

for (j = i + 1; j < n; j++)

    rs += arr[j];

if (ls == rs)

    return i;

}

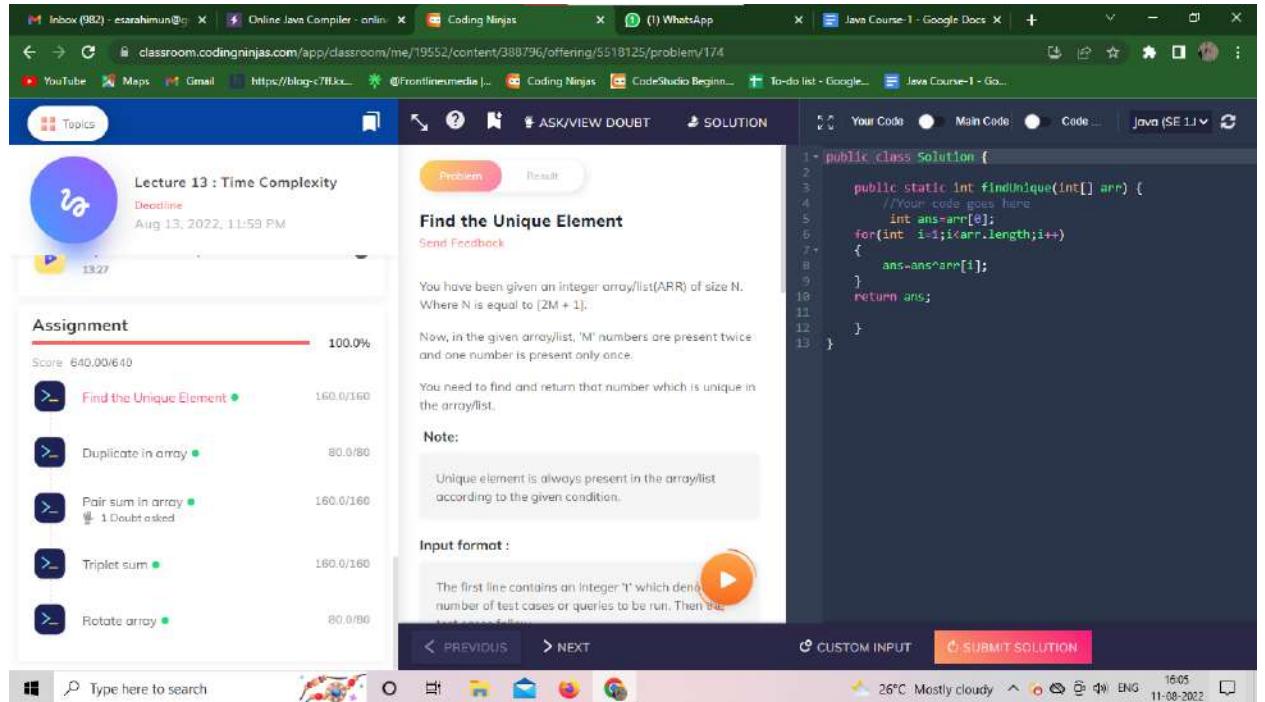
return -1;

}
```

Assignment

1. Find the Unique Element
2. Duplicate in array
3. Pair sum in array
4. Triplet sum

5. Rotate array



```
1 public class Solution {  
2     public static int findUnique(int[] arr) {  
3         //Your code goes here  
4         int ans=arr[0];  
5         for(int i=1;i<arr.length;i++)  
6         {  
7             ans=ans^arr[i];  
8         }  
9     }  
10    return ans;  
11 }  
12 }  
13 }
```

public class Solution {

```
    public static int findUnique(int[] arr) {  
  
        //Your code goes here  
  
        int ans=arr[0];  
  
        for(int i=1;i<arr.length;i++)  
  
        {  
  
            ans=ans^arr[i];  
  
        }  
    }
```

```
return ans;
```

```
}
```

```
}
```

The screenshot shows a Java assignment titled "Assignment" with a score of 640.00/640. It includes five tasks: "Find the Unique Element", "Duplicate in array", "Pair sum in array", "Triplet sum", and "Rotate array". The "Duplicate in array" task is selected, showing a problem statement and code editor.

Duplicate in array

You have been given an integer array/list(ARR) of size N which contains numbers from 0 to (N - 2). Each number is present at least once. That is, if N = 5, the array/list constitutes values ranging from 0 to 3, and among these, there is a single integer value that is present twice. You need to find and return that duplicate number present in the array.

Note :

Duplicate number is always present in the given array/list.

Input format :

The first line contains an Integer 'T' which denotes the number of test cases or queries to be run. Then the test cases follow.

Code Editor:

```
1 - public class Solution {  
2 -     public static int findDuplicate(int[] arr) {  
3 -         //Your code goes here  
4 -         int n=arr.length;  
5 -         int sum=0;  
6 -         for(int i=0;i<n;i++)  
7 -         {  
8 -             sum+=arr[i];  
9 -         }  
10 -        int s2;  
11 -        s2=((n-2)*(n-1))/2;  
12 -        return sum-s2;  
13 -    }  
14 - }
```

```
public class Solution {
```

```
    public static int findDuplicate(int[] arr) {
```

```
        //Your code goes here
```

```
        int n=arr.length;
```

```
int sum=0;

for(int i=0;i<n;i++)

{

    sum+=arr[i];

}

int s2;

s2=((n-2)*(n-1))/2;

return sum-s2;

}

}
```

```

1- import java.util.*;
2-
3- public class Solution {
4-
5-     public static int pairSum(int[] arr, int num) {
6-         //Your code goes here
7-         if(arr.length <= 1)
8-             return 0;
9-         Arrays.sort(arr);
10-        int count = 0;
11-        int i=0;
12-        int j=arr.length-1;
13-
14-        while(i<j)
15-        {
16-            if(arr[i] + arr[j] < num){
17-                i++;
18-            }
19-            else if(arr[i] + arr[j] > num)
20-            {
21-                j--;
22-            }
23-            else
24-            {
25-                if(arr[i] == arr[j]){
26-                    int m = j - i + 1;
27-                    count += (m*(m-1))/2;
28-                    break;
29-                }
30-            }
31-        }
32-    }
33- }

```

```
import java.util.*;
```

```
public class Solution {
```

```
    public static int pairSum(int[] arr, int num) {
```

```
        //Your code goes here
```

```
        if(arr.length <= 1)
```

```
        return 0;
```

```
        Arrays.sort(arr);
```

```
int count = 0;

int i=0;

int j=arr.length-1;

while(i<j)

{

    if(arr[i] + arr[j] < num){

        i++;

    }

    else if(arr[i] + arr[j] > num)

    {

        j--;

    }

    else

    {

        if(arr[i] == arr[j]){

            int m = j - i + 1;

            count += (m*(m-1))/2;

            break;

        }

    }

}
```

```
int start = i+1;

int end = j-1;

while(start <= end && arr[start] == arr[i])

    start++;

while(start <= end && arr[end] == arr[j])

    end--;

int f1 = start - i;

int f2 = j - end;

count += f1 * f2;

i = start;

j = end;

}

}

return count;

}
```

Lecture 13 : Time Complexity

Deadline: Aug 13, 2022, 11:59 PM

Assignment

Score	Task	Status
640.00/640	Find the Unique Element	160.0/160
	Duplicate in array	80.0/80
	Pair sum in array	160.0/160
	Triplet sum	160.0/160
	Rotate array	80.0/80

Triplet sum

Send Feedback

You have been given a random integer array/list(ARR) and a number X. Find and return the triplet(s) in the array/list which sum to X.

Note :

Given array/list can contain duplicate elements.

Input format :

The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.

First line of each test case or query contains an Integer 'N' representing the size of the first array/list.

Second line contains 'N' single space separated integers representing the elements in the array/list.

```
1= import java.util.*;
2= public class Solution {
3=
4=     public static int tripletSum(int[] arr, int num) {
5=         Arrays.sort(arr);
6=         int n = arr.length;
7=
8=         int numTriplets = 0;
9=
10=        for (int i=0; i<n; i++) {
11=            int pairSum = num - arr[i];
12=            int numPairs = 0;
13=
14=            int start = i + 1;
15=            int stop = n - 1;
16=
17=            while (start < stop) {
18=                if (arr[start] + arr[stop] < pairSum) {
19=                    start++;
20=                } else if (arr[start] + arr[stop] > pairSum) {
21=                    stop--;
22=                } else {
23=                    if (arr[start] == arr[stop]) {
24=                        int totalCount = (stop - start) + 1;
25=                        numPairs += (totalCount * (totalCount - 1)) / 2;
26=                        break;
27=                    }
28=                    int tempI = start + 1;
29=                    int tempJ = stop - 1;
30=                }
31=            }
32=        }
33=    }
34=}
```

```
import java.util.*;

public class Solution {

    public static int tripletSum(int[] arr, int num) {

        Arrays.sort(arr);

        int n = arr.length;

        int numTriplets = 0;
```

```
for (int i=0; i<n; i++) {  
  
    int pairSum = num - arr[i];  
  
    int numPairs = 0;  
  
  
  
  
    int start = i + 1;  
  
    int stop = n - 1;  
  
  
  
  
    while (start < stop) {  
  
        if (arr[start] + arr[stop] < pairSum) {  
  
            start++;  
  
        } else if (arr[start] + arr[stop] > pairSum) {  
  
            stop--;  
  
        } else {  
  
            if (arr[start] == arr[stop]) {  
  
                int totalCount = (stop - start) + 1;  
  
                numPairs += (totalCount * (totalCount - 1) / 2);  
  
                break;  
  
            }  
  
            int templ = start + 1;  
  
            while (templ < stop) {  
  
                if (arr[templ] == arr[stop]) {  
  
                    numPairs++;  
  
                }  
  
                templ++;  
  
            }  
  
        }  
  
    }  
  
}
```

```
int tempJ = stop - 1;

while (templ <= tempJ && arr[start] == arr[templ]) {
    templ++;
}

while (templ <= tempJ && arr[stop] == arr[tempJ]) {
    tempJ--;
}

int totalElementFromStart = (templ - start);
int totalElementFromEnd = stop - tempJ;

numPairs += (totalElementFromStart * totalElementFromEnd);

start = templ;
stop = tempJ;

}
}

numTriplets += numPairs;
```

```

    }

    return numTriplets;

}

}

```

```

1  public class Solution {
2
3      public static void rotate(int[] arr, int d) {
4          //Your code goes here
5          if(d<=0)
6              return;
7          if(d>arr.length)
8              d=d-arr.length;
9          reverseArray(arr,0,arr.length-1);
10         reverseArray(arr,0,arr.length-1-d);
11         reverseArray(arr,arr.length-d,arr.length-1);
12     }
13
14     private static void reverseArray(int[] arr,int start,int end)
15     {
16         int temp;
17         while(start<end){
18             temp = arr[start];
19             arr[start++] = arr[end];
20             arr[end--] = temp;
21         }
22     }
23
24 }
25
26 }

```

Rotate array

Send Feedback

You have been given a random integer array/list(ARR) of size N. Write a function that rotates the given array/list by D elements(towards the left).

Note:

Change in the input array/list itself. You don't need to return or print the elements.

Input format :

The first line contains an Integer 't' which denotes the number of test cases or queries to be run. Then the test cases follow.

First line of each test case or query contains an Integer 'N' representing the size of the array/list.

CUSTOM INPUT

SUBMIT SOLUTION

PREVIOUS > NEXT

Type here to search

26°C Mostly cloudy 16:12 11-08-2022

```
public class Solution {
```

```

public static void rotate(int[] arr, int d) {

    //Your code goes here

    if(d<=0)

    return;
}

```

```
if(d>arr.length)

    d=d-arr.length;

    reverseArray(arr,0,arr.length-1);

    reverseArray(arr,0,arr.length-1-d);

    reverseArray(arr,arr.length-d,arr.length-1);

}

private static void reverseArray(int[] arr,int start,int end)

{

    int temp;

    while(start<end){

        temp = arr[start];

        arr[start++] = arr[end];

        arr[end--] = temp;

    }

}

}
```

Test-3

Problem Result

Predict the output

[Send Feedback](#)

What will be the output of the following code?

```
public static int [] change(int input[]){
    input = new int[5];
    input[3] = 15;
    return input;
}

public static void main(String args[]){
    int arr[] = new int[15];
    arr=change(arr);
    System.out.println(arr[7]);
}
```

Options

This problem has only one correct answer

0
 15
 error

8/8 | 00H 29M 7S | [END TEST](#)

Topics

Test 3
Score: 400/500
Started on Aug 11, 2022, 11:52:11 AM

Time complexity of a code

[Send Feedback](#)

What will be the Time Complexity of following code in terms of ' n '?

```
for(i= 2; i<n; i+=1)
{
    for(j = 1; j < c; j++)
        // A line of code of  $\Theta(1)$ 
}
```

where c is a constant

Options

This problem has only one correct answer

$O(n)$
 $O(n^2)$
 $O(n\log n)$
 $O((\log n)^2)$

< PREVIOUS SKIP [SUBMIT AND NEXT](#)

Type here to search

The screenshot shows a Windows desktop with a browser window open to a Java coding test. The test title is "Test 3" with a score of 400/500, started on Aug 11, 2022, at 11:52:11 AM. The main area displays a Java code snippet:

```
public static void main(String[] args){  
    int arr1 = new int[5];  
    int arr2[] = new int['a'];  
    int bt = 10;  
    int arr3[] = new int[bt];  
    System.out.print(arr1.length);  
    System.out.print(arr2.length + " ");  
    System.out.print(arr3.length);  
}
```

To the right, there is an "Options" section with four radio button choices: "Error" (unchecked), "5 97 10" (checked), "5 65 10" (unchecked), and "Runtime exception" (unchecked). Below the code, there are navigation buttons: < PREVIOUS, > SKIP, and a large orange "SUBMIT AND NEXT" button.

This screenshot shows the same Java coding test interface as the first one, but with a different code snippet. The test title is "Test 3" with a score of 400/500, started on Aug 11, 2022, at 11:52:11 AM. The main area displays a Java code snippet:

```
public static void main(String args[]){  
    String str1 = new String ("I love coding");  
    String str2 = "I love coding";  
    boolean check=(str1==str2);  
    System.out.println(str1 == str2) + " "+  
    str1.equals(str2)+ " "+ check;  
}
```

To the right, there is an "Options" section with four radio button choices: "false true true" (unchecked), "true true false" (unchecked), "false false false" (unchecked), and "false true false" (checked). Below the code, there are navigation buttons: < PREVIOUS, > SKIP, and a large orange "SUBMIT AND NEXT" button.

[Send Feedback](#)

In a competition, four different functions are observed. All the functions use a single for loop and within the for loop, same set of statements (with constant time) are executed. Consider the following for loops:

- A) `for(i = 0; i < n; i++)`
- B) `for(i = 0; i < n; i += 2)`
- C) `for(i = 1; i < n; i *= 2)`
- D) `for(i = n; i > 0; i /= 2)`

If n is the size of input (positive), which function(s) is/are the most efficient?

Options

This problem may have one or more correct answers

- A)
- B)
- C)
- D)

1. Find Leaders in array

[Send Feedback](#)

Given an integer array A of size n . Find and print all the leaders present in the input array. An array element $A[i]$ is called Leader, if all the elements following it (i.e. present at its right) are less than or equal to $A[i]$.

Print all the leader elements separated by space and in the reverse order. That means whichever leader comes at last should be printed first.

Input Format :

Line 1 : Integer n , size of array

Line 2 : Array A elements (separated by space)

Output Format :

leaders of array (separated by space)

Constraints :

$1 \leq n \leq 10^6$

Sample Input 1 :

6

3 12 34 2 0 -1

Sample Output 1 :

-1 0 2 34

Sample Input 2 :

5
13 17 5 4 6

Sample Output 2 :

6 17

```
1 public class Solution {  
2  
3     public static void leaders(int[] input) {  
4         /* Your class should be named Solution  
5          * Don't write main().  
6          * Don't read input, it is passed as function argument.  
7          * Print output and don't return it.  
8          * Taking input is handled automatically.  
9     */  
10    int max= Integer.MIN_VALUE;  
11    int arr = 0;  
12    for(int i=input.length-1; i>=0; i--){
```

```
14 if(input[i]>=max){  
15     System.out.print(input[i]+" ");  
16     arr=input[i];  
17     max = arr;  
18 }  
19 }  
20 }  
21 }
```

2.Minimum Length Word

[Send Feedback](#)

Given a string S (that can contain multiple words), you need to find the word which has minimum length.

Note : If multiple words are of same length, then answer will be first minimum length word in the string.

Words are separated by single space only.

Input Format :

String S

Output Format :

Minimum length word

Constraints :

1 <= Length of String S <= 10^5

Sample Input 1 :

this is test string

Sample Output 1 :

is

Sample Input 2 :

abc de ghihjk a uvw h j

Sample Output 2 :

a

```
1 public class Solution {  
2  
3     public static String minLengthWord(String input){  
4  
5         // Write your code here  
6         int minStart = -1;  
7         int minLength = Integer.MAX_VALUE;  
8         int currentStart = 0;  
9         int i = 0;  
10        for(;i<input.length();i++){  
11            if(input.charAt(i) == ' '){
```

```

    int currentLength = i-currentStart;
13
    if(currentLength<minLength){
14
        minStart = currentStart;
15
        minLength = currentLength;
16
    }
17
    currentStart = i+1;
18
}
19
}
20
if(minStart == -1)
21
    return input;
22
else{
23
    int currentLength = i-currentStart;
24
    if(currentLength<minLength){
25
        minStart = currentStart;
26
        minLength = currentLength;
27
    }
28
    return input.substring(minStart, minStart+minLength);
29
}
30
}

```

3. Maximize the sum

[Send Feedback](#)

Given 2 sorted arrays (in increasing order), find a path through the intersections that produces maximum sum and return the maximum sum.

That is, we can switch from one array to another array only at common elements.

If no intersection element is present, we need to take sum of all elements from the array with greater sum.

Input Format :

Line 1 : An integer M i.e. size of first array

Line 2 : M integers which are elements of first array, separated by spaces

Line 3 : An integer N i.e. size of second array

Line 4 : N integers which are elements of second array, separated by spaces

Output Format :

Maximum sum value

Constraints :

$1 \leq M, N \leq 10^6$

Sample Input :

6

1 5 10 15 20 25

5

2 4 5 9 15

Sample Output :

81

Explanation :

We start from array 2 and take sum till 5 (sum = 11). Then we'll switch to array at element 10 and take till 15. So sum = 36. Now, no elements left in array after 15, so we'll continue in array 1. Hence sum is 81

```
public class Solution {  
  
    public static long maximumSumPath(int[] input1, int[] input2) {  
  
        long maxSum = 0;  
  
        if(input1.length ==0 && input2.length==0)  
  
        {  
  
            return maxSum;  
  
        }  
  
        long sum1 = 0;
```

```
long sum2 = 0;

int i=0, j=0;

while(i<input1.length && j<input2.length)

{

    if(input1[i]<input2[j]){

        sum1 += input1[i];

        i++;

    }else if(input2[j]<input1[i]){

        sum2 += input2[j];

        j++;

    }else if(input1[i]==input2[j]){

        sum1 += input1[i];

        sum2 += input2[j];

        maxSum += Math.max(sum1, sum2);

    }

    sum1=0;
```

```
sum2=0;

i++;

j++;

}

}

while(i<input1.length){

    sum1 += input1[i];

    i++;

}

while(j<input2.length)

{

    sum2 += input2[j];

    j++;

}
```

```
    }
```

```
        maxSum += Math.max(sum1, sum2);
```

```
    return maxSum;
```

```
}
```

```
}
```

Course Test-1

Rectangular numbers

The screenshot shows a web browser window with the following details:

- Title Bar:** Coding Ninjas, WhatsApp, Find maximum (or minimum), find maximum subarray sum, Java Course-1 - Google Docs.
- Address Bar:** classroom.codingninjas.com/app/classroom/me/19552/content/380798/offering/5518127/problem/682
- Content Area:**
 - Problem:** Rectangular numbers
 - Solution:** A code editor containing Java code for printing a rectangular pattern of numbers.
 - Description:** Prints the following pattern for the given number of rows:
Pattern for N = 4
444444
433334
4322234
4321234
4322234
433334
4444444
 - Input Format:** N (Total no. of rows)
 - Output Format:** Pattern in N lines
 - Sample Input:** 4
- Bottom Navigation:** PREVIOUS, NEXT, CUSTOM INPUT, SUBMIT SOLUTION, A-, A+, 25°C Mostly cloudy, 10:02, 13-08-2022.

```
public class solution {
```

```
    public static void print(int n) {
```

```
int s = 2 * n - 1;

// Upper Half
for (int i = 0; i < (s / 2) + 1; i++)
{
    int m = n;
    for (int j = 0; j < i; j++)
    {
        System.out.print(m);
        m--;
    }
    for (int k = 0;
         k < s - 2 * i; k++)
    {
        System.out.print(n - i);
    }

    m = n - i + 1;
    for (int l = 0; l < i; l++)
    {
        System.out.print(m);
        m++;
    }

    System.out.println();
}

for (int i = s / 2 - 1;
     i >= 0; i--)
{

// Decreasing Part
int m = n;
for (int j = 0; j < i; j++)
{
    System.out.print(m);
    m--;
}

// Constant Part.
```

```

for (int k = 0;
     k < s - 2 * i; k++)
{
    System.out.print(n - i);
}

// Decreasing Part
m = n - i + 1;
for (int l = 0; l < i; l++)
{
    System.out.print(m);
    m++;
}
System.out.println();
}

}

}

```

2. Find Maximum Subarray Sum

Find Maximum Subarray Sum

You are given an integer array, arr, of size N and a positive integer K. Out of all subarrays of 'arr' of size K, find the sum of the subarray that has the maximum sum.

Input format:

The first line of the input contains two space-separated integers, N and K.
The second line contains N space-separated integers which represent the elements of the array, arr.

Output format:

The output only consists of a single integer, the sum of the subarray that has the maximum sum.

Constraints:

1 ≤ N ≤ 10⁵
1 ≤ K ≤ N
-10⁹ ≤ arr[i] ≤ 10⁹

SAMPLE INPUT

```

import java.util.Scanner;
public class Solution {
    public static void main(String[] args) {
        Scanner s=new Scanner(System.in);
        int n=s.nextInt();
        int k=s.nextInt();
        int[] arr= new int[n];
        for(int i=0; i<n; i++)
            arr[i]=s.nextInt();
        int sum=0,max=Integer.MIN_VALUE;
        for (int i=0; i<n; i++) {
            for (int j=i; j<k+i && k<n; j++) {
                sum+=arr[j];
            }
            if(sum>max)max=sum;
            sum=0;
        }
        System.out.println(max);
    }
}

```

SAMPLE OUTPUT

```

10 5
10 5 20 30 40 30 20 10 50 20
70

```

Submit Solution

```

import java.util.Scanner;
public class Solution {

```

```

public static void main(String[] args) {
    Scanner s= new Scanner(System.in);
    int n=s.nextInt();
    int k=s.nextInt();
    int[] arr= new int[n];
    for(int i=0; i<arr.length; i++)
        arr[i]=s.nextInt();
    int sum=0,max=Integer.MIN_VALUE;
    for (int i=0; i<n; i++) {
        for (int j=i+1; j<k+i+1 && k+i<n; j++) {
            sum+=arr[j];
        }
        if(sum>max)max=sum;
        sum=0;
    }
    System.out.println(max);
}
}

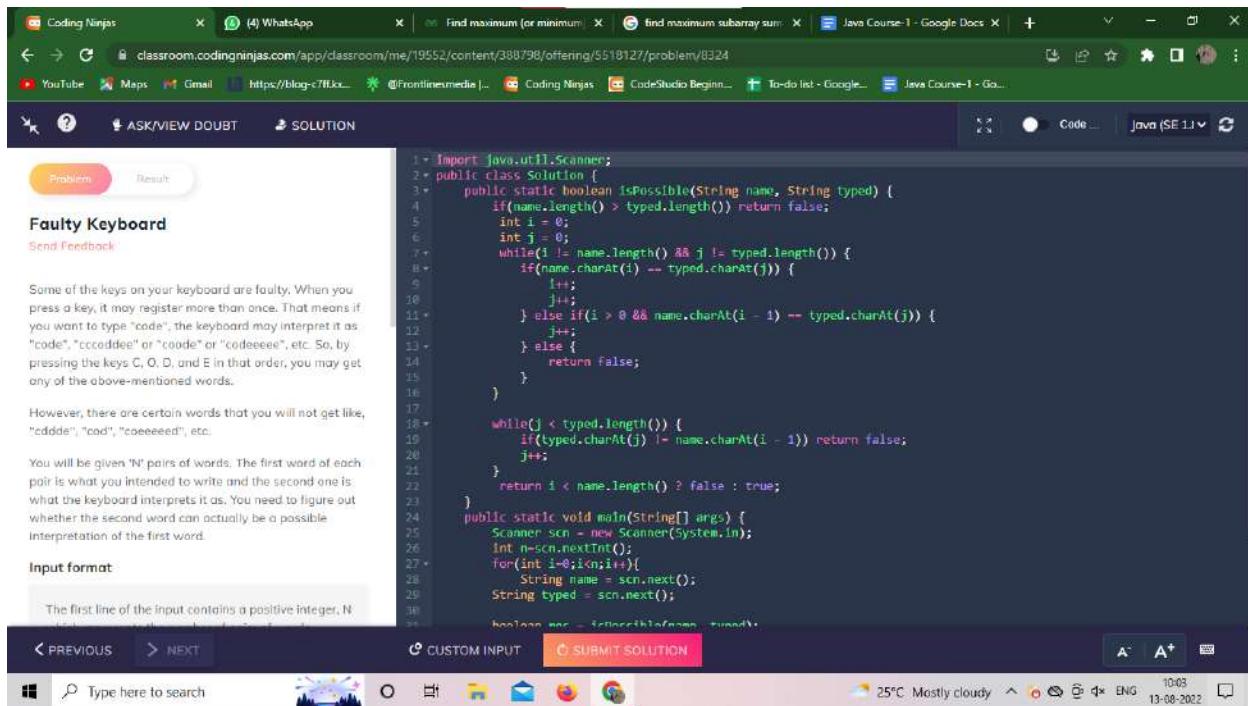
```

```

7
8int getMaxSubarraySum(int *arr, int n, int k) {
9    int currSum = 0;
0
11   for (int i = 0; i < k; ++i) {
12       currSum += arr[i];
13   }
14
15   int maxSum = currSum;
16
17   for (int i = k; i < n; ++i) {
8       currSum -= arr[i - k];
19       currSum += arr[i];
20
21       maxSum = max(currSum, maxSum);
22   }
23
24   return maxSum;
25

```

3.Faulty Keyboard



```
1+ import java.util.Scanner;
2+ public class Solution {
3+     public static boolean isPossible(String name, String typed) {
4+         if(name.length() > typed.length()) return false;
5+         int i = 0;
6+         int j = 0;
7+         while(i <= name.length() && j <= typed.length()) {
8+             if(name.charAt(i) == typed.charAt(j)) {
9+                 i++;
10+                j++;
11+            } else if(i > 0 && name.charAt(i - 1) == typed.charAt(j)) {
12+                j++;
13+            } else {
14+                return false;
15+            }
16+
17+            while(j < typed.length()) {
18+                if(typed.charAt(j) != name.charAt(i - 1)) return false;
19+                j++;
20+            }
21+
22+        }
23+        return i < name.length() ? false : true;
24+    }
25+    public static void main(String[] args) {
26+        Scanner scn = new Scanner(System.in);
27+        int n=scn.nextInt();
28+        for(int i=0;i<n;i++){
29+            String name = scn.next();
30+            String typed = scn.next();
31+
32+            boolean ans = isPossible(name, typed);
33+        }
34+    }
35+}
```

```
import java.util.Scanner;
```

```
public class Solution {
```

```
    public static boolean isPossible(String name, String typed) {
```

```
        if(name.length() > typed.length()) return false;
```

```
        int i = 0;
```

```
        int j = 0;
```

```
        while(i != name.length() && j != typed.length()) {
```

```
if(name.charAt(i) == typed.charAt(j)) {  
  
    i++;  
  
    j++;  
  
} else if(i > 0 && name.charAt(i - 1) == typed.charAt(j)) {  
  
    j++;  
  
} else {  
  
    return false;  
  
}  
  
}  
  
while(j < typed.length()) {  
  
    if(typed.charAt(j) != name.charAt(i - 1)) return false;  
  
    j++;  
  
}  
  
return i < name.length() ? false : true;
```

```
}
```

```
public static void main(String[] args) {
```

```
    Scanner scn = new Scanner(System.in);
```

```
    int n=scn.nextInt();
```

```
    for(int i=0;i<n;i++){
```

```
        String name = scn.next();
```

```
        String typed = scn.next();
```

```
        boolean res = isPossible(name, typed);
```

```
        System.out.println(res);
```

```
}
```

```
}
```

```
}
```