Java Basic Programming : Exercises, Practice, Solution

Last update on January 21 2022 12:52:21 (UTC/GMT +8 hours)

Java Basic Exercises [150 exercises with solution]

[*An editor is available at the bottom of the page to write and execute the scripts.*]

1. Write a Java program to print 'Hello' on screen and then print your name on a separate line. Go to the editor
Expected Output :
Hello
Alexandra Abramov

Click me to see the solution

2. Write a Java program to print the sum of two numbers. Go to the editor
Test Data:
74 + 36
Expected Output :
110

Click me to see the solution

3. Write a Java program to divide two numbers and print on the screen. Go to the editor
Test Data :
50/3
Expected Output :
16

Click me to see the solution

4. Write a Java program to print the result of the following operations. Go to the editor
Test Data:
a. -5 + 8 * 6
b. (55+9) % 9
c. 20 + -3*5 / 8
d. 5 + 15 / 3 * 2 - 8 % 3
Expected Output :
43

1
19
13

Click me to see the solution

5. Write a Java program that takes two numbers as input and display the product of two numbers. Go to the editor
Test Data:
Input first number: 25
Input second number: 5
Expected Output :
25 x 5 = 125

Click me to see the solution

6. Write a Java program to print the sum (addition), multiply, subtract, divide and remainder of two numbers. Go to the editor
Test Data:
Input first number: 125
Input second number: 24
Expected Output :
125 + 24 = 149
125 - 24 = 101
125 x 24 = 3000
125 / 24 = 5
125 mod 24 = 5

Click me to see the solution

7. Write a Java program that takes a number as input and prints its multiplication table upto 10. Go to the editor
Test Data:
Input a number: 8
Expected Output :
8 x 1 = 8
8 x 2 = 16
8 x 3 = 24
...
8 x 10 = 80

Click me to see the solution

8. Write a Java program to display the following pattern. Go to the editor
Sample Pattern :

```
   J    a   v     v  a
   J   a a   v   v  a a
J  J  aaaaa   V V  aaaaa
 JJ  a     a   V  a     a
```

Click me to see the solution

9. Write a Java program to compute the specified expressions and print the output. Go to the editor
Test Data:
((25.5 * 3.5 - 3.5 * 3.5) / (40.5 - 4.5))
Expected Output
2.138888888888889

Click me to see the solution

10. Write a Java program to compute a specified formula. Go to the editor
Specified Formula :
4.0 * (1 - (1.0/3) + (1.0/5) - (1.0/7) + (1.0/9) - (1.0/11))
Expected Output
2.9760461760461765

Click me to see the solution

11. Write a Java program to print the area and perimeter of a circle. Go to the editor
Test Data:
Radius = 7.5
Expected Output
Perimeter is = 47.12388980384689
Area is = 176.71458676442586

Click me to see the solution

12. Write a Java program that takes three numbers as input to calculate and print the average of the numbers. Go to the editor
Click me to see the solution

13. Write a Java program to print the area and perimeter of a rectangle. Go to the editor
Test Data:
Width = 5.5 Height = 8.5

Expected Output
Area is 5.6 * 8.5 = 47.60
Perimeter is 2 * (5.6 + 8.5) = 28.20

Click me to see the solution

14. Write a Java program to print an American flag on the screen. Go to the editor

Expected Output

```
* * * * * * ==================================
 * * * * *  ==================================
* * * * * * ==================================
 * * * * *  ==================================
* * * * * * ==================================
 * * * * *  ==================================
* * * * * * ==================================
 * * * * *  ==================================
* * * * * * ==================================
==============================================
==============================================
==============================================
==============================================
==============================================
==============================================
```

Click me to see the solution

15. Write a Java program to swap two variables. Go to the editor

Click me to see the solution

16. Write a Java program to print a face. Go to the editor

Expected Output

```
 +"""""+
[| o o |]
 |  ^  |
 | '-' |
 +-----+
```

Click me to see the solution

17. Write a Java program to add two binary numbers. Go to the editor

Input Data:

Input first binary number: 10

Input second binary number: 11

Expected Output

```
Sum of two binary numbers: 101
```

Click me to see the solution

18. Write a Java program to multiply two binary numbers. Go to the editor

Input Data:

Input the first binary number: 10

Input the second binary number: 11

Expected Output

```
Product of two binary numbers: 110
```

Click me to see the solution

19. Write a Java program to convert a decimal number to binary number. Go to the editor
Input Data:
Input a Decimal Number : 5
Expected Output

```
Binary number is: 101
```

Click me to see the solution

20. Write a Java program to convert a decimal number to hexadecimal number. Go to the editor
Input Data:
Input a decimal number: 15
Expected Output

```
Hexadecimal number is : F
```

Click me to see the solution

21. Write a Java program to convert a decimal number to octal number. Go to the editor
Input Data:
Input a Decimal Number: 15
Expected Output

```
Octal number is: 17
```

Click me to see the solution

22. Write a Java program to convert a binary number to decimal number. Go to the editor
Input Data:
Input a binary number: 100
Expected Output

```
Decimal Number: 4
```

Click me to see the solution

23. Write a Java program to convert a binary number to hexadecimal number. Go to the editor
Input Data:
Input a Binary Number: 1101
Expected Output

```
HexaDecimal value: D
```

Click me to see the solution

24. Write a Java program to convert a binary number to a Octal number. Go to the editor
Input Data:
Input a Binary Number: 111
Expected Output

```
Octal number: 7
```

Click me to see the solution

25. Write a Java program to convert a octal number to a decimal number. Go to the editor
Input Data:
Input any octal number: 10
Expected Output

```
Equivalent decimal number: 8
```

Click me to see the solution

26. Write a Java program to convert a octal number to a binary number. Go to the editor
Input Data:
Input any octal number: 7
Expected Output

```
Equivalent binary number: 111
```

Click me to see the solution

27. Write a Java program to convert a octal number to a hexadecimal number. Go to the editor
Input Data:
Input a octal number : 100
Expected Output

```
Equivalent hexadecimal number: 40
```

Click me to see the solution

28. Write a Java program to convert a hexadecimal to a decimal number. Go to the editor
Input Data:
Input a hexadecimal number: 25
Expected Output

```
Equivalent decimal number is: 37
```

Click me to see the solution

29. Write a Java program to convert a hexadecimal to a binary number. Go to the editor
Input Data:
Enter Hexadecimal Number : 37
Expected Output

```
Equivalent Binary Number is: 110111
```

Click me to see the solution

30. Write a Java program to convert a hexadecimal to a octal number. Go to the editor

Input Data:

Input a hexadecimal number: 40

Expected Output

```
Equivalent of octal number is: 100
```

Click me to see the solution

31. Write a Java program to check whether Java is installed on your computer. Go to the editor

Expected Output

```
Java Version: 1.8.0_71
Java Runtime Version: 1.8.0_71-b15
Java Home: /opt/jdk/jdk1.8.0_71/jre
Java Vendor: Oracle Corporation
Java Vendor URL: http://Java.oracle.com/
Java Class Path: .
```

Click me to see the solution

32. Write a Java program to compare two numbers. Go to the editor

Input Data:

Input first integer: 25

Input second integer: 39

Expected Output

```
25 != 39
25 < 39
25 <= 39
```

Click me to see the solution

33. Write a Java program and compute the sum of the digits of an integer. Go to the editor

Input Data:

Input an integer: 25

Expected Output

```
The sum of the digits is: 7
```

Click me to see the solution

34. Write a Java program to compute the area of a hexagon. Go to the editor

Area of a hexagon = (6 * s^2)/(4*tan(π/6))

where s is the length of a side

Input Data:
Input the length of a side of the hexagon: 6
Expected Output

```
The area of the hexagon is: 93.53074360871938
```

Click me to see the solution

35. Write a Java program to compute the area of a polygon. Go to the editor
Area of a polygon = (n*s^2)/(4*tan(π/n))
where n is n-sided polygon and s is the length of a side
Input Data:
Input the number of sides on the polygon: 7
Input the length of one of the sides: 6
Expected Output

```
The area is: 130.82084798405722
```

Click me to see the solution

36. Write a Java program to compute the distance between two points on the surface of earth. Go to the editor
Distance between the two points [(x1,y1) & (x2,y2)]
d = radius * arccos(sin(x1) * sin(x2) + cos(x1) * cos(x2) * cos(y1 - y2))
Radius of the earth r = 6371.01 Kilometers
Input Data:
Input the latitude of coordinate 1: 25
Input the longitude of coordinate 1: 35
Input the latitude of coordinate 2: 35.5
Input the longitude of coordinate 2: 25.5
Expected Output

```
The distance between those points is: 1480.0848451069087 km
```

Click me to see the solution

37. Write a Java program to reverse a string. Go to the editor
Input Data:
Input a string: The quick brown fox
Expected Output

```
Reverse string: xof nworb kciuq ehT
```

Click me to see the solution

38. Write a Java program to count the letters, spaces, numbers and other characters of an input string. Go to the editor
Expected Output

```
The string is :  Aa kiu, I swd skieo 236587. GH kiu: sieo?? 25.33
letter: 23
space: 9
number: 10
other: 6
```

Click me to see the solution

39. Write a Java program to create and display unique three-digit number using 1, 2, 3, 4. Also count how many three-digit numbers are there. Go to the editor

Expected Output

```
123
124
...

431
432
Total number of the three-digit-number is 24
```

Click me to see the solution

40. Write a Java program to list the available character sets in charset objects. Go to the editor

Expected Output

```
List of available character sets:
Big5
Big5-HKSCS
CESU-8
EUC-JP
EUC-KR
GB18030
GB2312
GBK

...

x-SJIS_0213
x-UTF-16LE-BOM
X-UTF-32BE-BOM
X-UTF-32LE-BOM
x-windows-50220
x-windows-50221
x-windows-874
x-windows-949
x-windows-950
x-windows-iso2022jp
```

Click me to see the solution

41. Write a Java program to print the ascii value of a given character. Go to the editor

Expected Output

```
The ASCII value of Z is :90
```

Click me to see the solution

42. Write a Java program to input and display your password. Go to the editor
Expected Output

```
Input your Password:
Your password was: abc@123
```

Click me to see the solution

43. Write a Java program to print the following string in a specific format (see the output). Go to the editor
Sample Output

```
Twinkle, twinkle, little star,
        How I wonder what you are!
                Up above the world so high,
                Like a diamond in the sky.
Twinkle, twinkle, little star,
        How I wonder what you are
```

Click me to see the solution

44. Write a Java program that accepts an integer (n) and computes the value of n+nn+nnn. Go to the editor
Sample Output:

```
Input number: 5
5 + 55  + 555
```

Click me to see the solution

45. Write a Java program to find the size of a specified file. Go to the editor
Sample Output:

```
/home/students/abc.txt  : 0 bytes
/home/students/test.txt : 0 bytes
```

Click me to see the solution

46. Write a Java program to display the system time. Go to the editor
Sample Output:

```
Current Date time: Fri Jun 16 14:17:40 IST 2017
```

Click me to see the solution

47. Write a Java program to display the current date time in specific format. Go to the editor
Sample Output:

```
Now: 2017/06/16 08:52:03.066
```

Click me to see the solution

48. Write a Java program to print the odd numbers from 1 to 99. Prints one number per line. Go to the editor
Sample Output:

```
1
3
5
7
9
11
....

91
93
95
97
99
```

Click me to see the solution

49. Write a Java program to accept a number and check the number is even or not. Prints 1 if the number is even or 0 if the number is odd. Go to the editor
Sample Output:

```
Input a number: 20
1
```

Click me to see the solution

50. Write a Java program to print numbers between 1 to 100 which are divisible by 3, 5 and by both. Go to the editor
Sample Output:

```
Divided by 3:
3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, 51, 54, 57
, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, 93, 96, 99,

Divided by 5:
5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90,
95,

Divided by 3 & 5:
15, 30, 45, 60, 75, 90,
```

Click me to see the solution

51. Write a Java program to convert a string to an integer in Java. Go to the editor
Sample Output:

```
Input a number(string): 25
The integer value is: 25
```

Click me to see the solution

52. Write a Java program to calculate the sum of two integers and return true if the sum is equal to a third integer. Go to the editor
Sample Output:

```
Input the first number : 5
Input the second number: 10
Input the third number : 15
The result is: true
```

Click me to see the solution

53. Write a Java program that accepts three integers from the user and return true if the second number is greater than first number and third number is greater than second number. If "abc" is true second number does not need to be greater than first number. Go to the editor
Sample Output:

```
Input the first number : 5
Input the second number: 10
Input the third number : 15
The result is: true
```

Click me to see the solution

54. Write a Java program that accepts three integers from the user and return true if two or more of them (integers) have the same rightmost digit. The integers are non-negative. Go to the editor
Sample Output:

```
Input the first number : 5
Input the second number: 10
Input the third number : 15
The result is: true
```

Click me to see the solution

55. Write a Java program to convert seconds to hour, minute and seconds. Go to the editor
Sample Output:

```
Input seconds: 86399
23:59:59
```

Click me to see the solution

56. Write a Java program to find the number of values in a given range divisible by a given value. Go to the editor
For example x = 5, y=20 and p =3, find the number of integers within the range x..y and that

are divisible by p i.e. { i :x ≤ i ≤ y, i mod p = 0 }

Sample Output:

```
5
```

Click me to see the solution

57. Write a Java program to accepts an integer and count the factors of the number. Go to the editor

Sample Output:

```
Input an integer: 25
3
```

Click me to see the solution

58. Write a Java program to capitalize the first letter of each word in a sentence. Go to the editor

Sample Output:

```
Input a Sentence: the quick brown fox jumps over the lazy dog.
The Quick Brown Fox Jumps Over The Lazy Dog.
```

Click me to see the solution

59. Write a Java program to convert a given string into lowercase. Go to the editor

Sample Output:

```
Input a String: THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG.
the quick brown fox jumps over the lazy dog.
```

Click me to see the solution

60. Write a Java program to find the penultimate (next to last) word of a sentence. Go to the editor

Sample Output:

```
Input a String: The quick brown fox jumps over the lazy dog.
Penultimate word: lazy
```

Click me to see the solution

61. Write a Java program to reverse a word. Go to the editor

Sample Output:

```
Input a word: dsaf
Reverse word: fasd
```

Click me to see the solution

62. Write a Java program that accepts three integer values and return true if one of them is 20 or more and less than the substractions of others. Go to the editor

Sample Output:

```
Input the first number : 15
Input the second number: 20
Input the third number : 25
false
```

Click me to see the solution

63. Write a Java program that accepts two integer values from the user and return the larger values. However if the two values are the same, return 0 and return the smaller value if the two values have the same remainder when divided by 6. Go to the editor

Sample Output:

```
Input the first number : 12
Input the second number: 13
Result: 13
```

Click me to see the solution

64. Write a Java program that accepts two integer values between 25 to 75 and return true if there is a common digit in both numbers. Go to the editor

Sample Output:

```
Input the first number : 35
Input the second number: 45
Result: true
```

Click me to see the solution

65. Write a Java program to calculate the modules of two numbers without using any inbuilt modulus operator. Go to the editor

Sample Output:

```
Input the first number : 19
Input the second number: 7
5
```

Click me to see the solution

66. Write a Java program to compute the sum of the first 100 prime numbers. Go to the editor

Sample Output:

```
Sum of the first 100 prime numbers: 24133
```

Click me to see the solution

67. Write a Java program to insert a word in the middle of the another string. Go to the editor
Insert "Tutorial" in the middle of "Python 3.0", so result will be Python Tutorial 3.0
Sample Output:

```
Python Tutorial 3.0
```

Click me to see the solution

68. Write a Java program to create a new string of 4 copies of the last 3 characters of the original string. The length of the original string must be 3 and above. Go to the editor
Sample Output:

```
3.03.03.03.0
```

Click me to see the solution

69. Write a Java program to extract the first half of a string of even length. Go to the editor
Test Data: Python
Sample Output:

```
Pyt
```

Click me to see the solution

70. Write a Java program to create a string in the form short_string + long_string + short_string from two strings. The strings must not have the same length. Go to the editor
Test Data: Str1 = Python
Str2 = Tutorial
Sample Output:

```
PythonTutorialPython
```

Click me to see the solution

71. Write a Java program to create the concatenation of the two strings except removing the first character of each string. The length of the strings must be 1 and above. Go to the editor
Test Data: Str1 = Python
Str2 = Tutorial
Sample Output:

```
ythonutorial
```

Click me to see the solution

72. Write a Java program to create a new string taking first three characters from a given string. If the length of the given string is less than 3 use "#" as substitute characters. Go to the editor
Test Data: Str1 = " "
Sample Output:

```
###
```

Click me to see the solution

73. Write a Java program to create a new string taking first and last characters from two given strings. If the length of either string is 0 use "#" for missing character. Go to the editor
Test Data: str1 = "Python"
str2 = " "
Sample Output:

```
P#
```

Click me to see the solution

74. Write a Java program to test if 10 appears as either the first or last element of an array of integers. The length of the array must be greater than or equal to 2. Go to the editor
Sample Output:
Test Data: array = 10, -20, 0, 30, 40, 60, 10

```
true
```

Click me to see the solution

75. Write a Java program to test if the first and the last element of an array of integers are same. The length of the array must be greater than or equal to 2. Go to the editor
Test Data: array = 50, -20, 0, 30, 40, 60, 10
Sample Output:

```
false
```

Click me to see the solution

76. Write a Java program to test if the first or the last element of two array of integers are same. The length of the array must be greater than or equal to 2. Go to the editor
Test Data: array1 = 50, -20, 0, 30, 40, 60, 12
array2 = 45, 20, 10, 20, 30, 50, 11
Sample Output:

```
false
```

Click me to see the solution

77. Write a Java program to create a new array of length 2 from two arrays of integers with three elements and the new array will contain the first and last elements from the two arrays. Go to the editor
Test Data: array1 = 50, -20, 0
array2 = 5, -50, 10
Sample Output:

```
Array1: [50, -20, 0]
Array2: [5, -50, 10]
New Array: [50, 10]
```

Click me to see the solution

78. Write a Java program to test that a given array of integers of length 2 contains a 4 or a 7. Go to the editor

Sample Output:

```
Original Array: [5, 7]
true
```

Click me to see the solution

79. Write a Java program to rotate an array (length 3) of integers in left direction. Go to the editor

Sample Output:

```
Original Array: [20, 30, 40]
Rotated Array: [30, 40, 20]
```

Click me to see the solution

80. Write a Java program to get the larger value between first and last element of an array (length 3) of integers . Go to the editor

Sample Output:

```
Original Array: [20, 30, 40]
Larger value between first and last element: 40
```

Click me to see the solution

81. Write a Java program to swap the first and last elements of an array (length must be at least 1) and create a new array. Go to the editor

Sample Output:

```
Original Array: [20, 30, 40]
New array after swaping the first and last elements: [40, 30, 20]
```

Click me to see the solution

82. Write a Java program to find the largest element between first, last, and middle values from an array of integers (even length). Go to the editor

Sample Output:

```
Original Array: [20, 30, 40, 50, 67]
Largest element between first, last, and middle values: 67
```

Click me to see the solution

83. Write a Java program to multiply corresponding elements of two arrays of integers. Go to the editor

Sample Output:

```
Array1: [1, 3, -5, 4]

Array2: [1, 4, -5, -2]

Result: 1 12 25 -8
```

Click me to see the solution

84. Write a Java program to take the last three characters from a given string and add the three characters at both the front and back of the string. String length must be greater than three and more. Go to the editor

Test data: "Python" will be "honPythonhon"

Sample Output:

```
honPythonhon
```

Click me to see the solution

85. Write a Java program to check if a string starts with a specified word. Go to the editor

Sample Data: string1 = "Hello how are you?"

Sample Output:

```
true
```

Click me to see the solution

86. Write a Java program start with an integer n, divide n by 2 if n is even or multiply by 3 and add 1 if n is odd, repeat the process until n = 1. Go to the editor

Click me to see the solution

87. Write a Java program than read an integer and calculate the sum of its digits and write the number of each digit of the sum in English. Go to the editor

Click me to see the solution

88. Write a Java program to get the current system environment and system properties. Go to the editor

Click me to see the solution

89. Write a Java program to check whether a security manager has already been established for the current application or not. Go to the editor

Click me to see the solution

90. Write a Java program to get the value of the environment variable PATH, TEMP, USERNAME. Go to the editor
Click me to see the solution

91. Write a Java program to measure how long some code takes to execute in nanoseconds. Go to the editor
Click me to see the solution

92. Write a Java program to count the number of even and odd elements in a given array of integers. Go to the editor
Click me to see the solution

93. Write a Java program to test if an array of integers contains an element 10 next to 10 or an element 20 next to 20, but not both. Go to the editor
Click me to see the solution

94. Write a Java program to rearrange all the elements of a given array of integers so that all the odd numbers come before all the even numbers. Go to the editor
Click me to see the solution

95. Write a Java program to create an array (length # 0) of string values. The elements will contain "0", "1", "2" … through ... n-1. Go to the editor
Click me to see the solution

96. Write a Java program to check if there is a 10 in a given array of integers with a 20 somewhere later in the array. Go to the editor
Click me to see the solution

97. Write a Java program to check if an array of integers contains a specified number next to each other or there are two same specified numbers separated by one element. Go to the editor
Click me to see the solution

98. Write a Java program to check if the value 20 appears three times and no 20's are next to each other in a given array of integers. Go to the editor
Click me to see the solution

99. Write a Java program to check if a specified number appears in every pair of adjacent element of a given array of integers. Go to the editor
Click me to see the solution

100. Write a Java program to count the two elements of two given arrays of integers with same length, differ by 1 or less. Go to the editor
Click me to see the solution

101. Write a Java program to check if the number of 10 is greater than number to 20 in a given array of integers. Go to the editor
Click me to see the solution

102. Write a Java program to check if a specified array of integers contains 10 or 30. Go to the editor
Click me to see the solution

103. Write a Java program to create a new array from a given array of integers, new array will contain the elements from the given array after the last element value 10. Go to the editor
Click me to see the solution

104. Write a Java program to create a new array from a given array of integers, new array will contain the elements from the given array before the last element value 10. Go to the editor
Click me to see the solution

105. Write a Java program to check if a group of numbers (l) at the start and end of a given array are same. Go to the editor
Click me to see the solution

106. Write a Java program to create a new array that is left shifted from a given array of integers. Go to the editor
Click me to see the solution

107. Write a Java program to check if an array of integers contains three increasing adjacent numbers. Go to the editor
Click me to see the solution

108. Write a Java program to add all the digits of a given positive integer until the result has a single digit. Go to the editor
Click me to see the solution

109. Write a Java program to form a staircase shape of n coins where every k-th row must have exactly k coins. Go to the editor
Click me to see the solution

110. Write a Java program to check whether a given integer is a power of 4 or not. Go to the editor
Given num = 64, return true. Given num = 6, return false.
Click me to see the solution

111. Write a Java program to add two numbers without using any arithmetic operators. Go to the editor
Given x = 10 and y = 12; result = 22
Click me to see the solution

112. Write a Java program to compute the number of trailing zeros in a factorial. Go to the editor
7! = 5040, therefore the output should be 1
Click me to see the solution

113. Write a Java program to merge two given sorted array of integers and create a new sorted array. Go to the editor
array1 = [1,2,3,4]
array2 = [2,5,7, 8]
result = [1,2,2,3,4,5,7,8]
Click me to see the solution

114. Write a Java program to given a string and an offset, rotate string by offset (rotate from left to right). Go to the editor
Click me to see the solution

115. Write a Java program to check if a positive number is a palindrome or not. Go to the editor
Input a positive integer: 151
Is 151 is a palindrome number?
true
Click me to see the solution

116. Write a Java program which iterates the integers from 1 to 100. For multiples of three print "Fizz" instead of the number and print "Buzz" for the multiples of five. When number is divided by both three and five, print "fizz buzz". Go to the editor
Click me to see the solution

117. Write a Java program to compute the square root of a given integer. Go to the editor
Input a positive integer: 25
Square root of 25 is: 5
Click me to see the solution

118. Write a Java program to get the first occurrence (Position starts from 0.) of a string within a given string. Go to the editor
Click me to see the solution

119. Write a Java program to get the first occurrence (Position starts from 0.) of an element of a given array. Go to the editor
Click me to see the solution

120. Write a Java program that searches a value in an m x n matrix. Go to the editor
Click me to see the solution

121. Write a Java program to reverse a given linked list. Go to the editor
Example: For linked list 20->40->60->80, the reversed linked list is 80->60->40->20 Click me to see the solution

122. Write a Java program to find a contiguous subarray with largest sum from a given array of integers. Go to the editor
Note: In computer science, the maximum subarray problem is the task of finding the contiguous subarray within a one-dimensional array of numbers which has the largest sum. For example, for the sequence of values −2, 1, −3, 4, −1, 2, 1, −5, 4; the contiguous subarray with the largest sum is 4, −1, 2, 1, with sum 6. The subarray should contain one integer at least. Click me to see the solution

123. Write a Java program to find the subarray with smallest sum from a given array of integers. Go to the editor
Click me to see the solution

124. Write a Java program to find the index of a value in a sorted array. If the value does not find return the index where it would be if it were inserted in order. Go to the editor
Example:
[1, 2, 4, 5, 6] 5(target) -> 3(index)
[1, 2, 4, 5, 6] 0(target) -> 0(index)
[1, 2, 4, 5, 6] 7(target) -> 5(index)
Click me to see the solution

125. Write a Java program to get the preorder traversal of its nodes' values of a given a binary tree. Go to the editor
Example:

```
    10
   / \
  20   30
 / \
40   50
```

Expected output: 10 20 40 50 30
Click me to see the solution

126. Write a Java program to get the inorder traversal of its nodes' values of a given a binary tree. Go to the editor

```
    10
   / \
  20   30
 / \
40   50
```

Example:{10, 20, 30, 40, 50}
Output: 40 20 50 10 30
Click me to see the solution

127. Write a Java program to get the Postorder traversal of its nodes' values of a given a binary tree. Go to the editor

```
    10
   / \
  20   30
 / \
40   50
```

Click me to see the solution

128. Write a Java program to calculate the median of a given unsorted array of integers. Go to the editor

Original array: [10, 2, 38, 22, 38, 23]
Median of the said array of integers: 30
Original array: [10, 2, 38, 23, 38, 23, 21]
Median of the said array of integers: 23
Click me to see the solution

129. Write a Java program to find a number that appears only once in a given array of integers, all numbers occur twice. Go to the editor

Source Array : [10, 20, 10, 20, 30, 40, 40, 30, 50] 50 appears only once
Click me to see the solution

130. Write a Java program to find the maximum depth of a given a binary tree. Go to the editor

Sample Output: The Maximum depth of the binary tree is: 3
Click me to see the solution

131. Write a Java program to find the new length of a given sorted array where each element appear only once (remove the duplicates). Go to the editor

Original array: [1, 1, 2, 3, 3, 3, 4, 5, 6, 7, 7] The length of the original array is: 11 After removing duplicates, the new length of the array is: 7
Click me to see the solution

132. Write a Java program to find the new length of a given sorted array where duplicate elements appeared at most twice. Go to the editor

Original array: [1, 1, 2, 3, 3, 3, 4, 5, 6, 7, 7, 7, 7]
The length of the original array is: 13
After removing duplicates, the new length of the array is: 10
Click me to see the solution

133. Write a Java program to find a path from top left to bottom in right direction which minimizes the sum of all numbers along its path. Go to the editor

Note: Move either down or right at any point in time.
Sample Output: Sum of all numbers along its path: 13
Click me to see the solution

134. Write a Java program to find the distinct ways you can climb to the top (n steps to reach to the top) of stairs. Each time you can either climb 1 or 2 steps. Go to the editor

Example: n = 5
a) 1+1+1+1+1 = 5 b) 1+1+1+2 = 5 c) 1+2+2 = 5 d) 2+2+1 = 5 e) 2+1+1+1 = 5 f) 2+1+2 = 5 g)

1+2+1+1 = 5 h) 1+1+2+1 = 5
Sample Output: Distinct ways can you climb to the top: 8
Click me to see the solution

135. Write a Java program to remove duplicates from a sorted linked list. Go to the editor
Original List with duplicate elements:
12->12->13->14->15->15->16->17->17
After removing duplicates from the said list:
12->13->14->15->16->17
Click me to see the solution

136. Write a Java program to find possible unique paths from top-left corner to bottom-right corner of a given grid (m x n). Go to the editor
Note: You can move either down or right at any point in time.
Sample Output: Unique paths from top-left corner to bottom-right corner of the said grid: 3
Click me to see the solution

137. Write a Java program to find possible unique paths considering some obstacles, from top-left corner to bottom-right corner of a given grid (m x n). Go to the editor
Note: You can move either down or right at any point in time and an obstacle and empty space is marked as 1 and 0 respectively in the grid.
Sample grid:
int[][] obstacle_Grid ={
{0, 0, 0},
{0, 1, 0},
{0, 0, 0},
};
Sample Output: Unique paths from top-left corner to bottom-right corner of the said grid (considering some obstacles): 2
Click me to see the solution

138. Write a Java program to find all of the longest word in a given dictionary. Go to the editor
Example-1:
{
"cat",
"flag",
"green",
"country",
"w3resource"
}
Result: "w3resource"
Example-2:
{
"cat",
"dog",

"red",
"is",
"am"
}
Result: "cat", "dog", "red"
Click me to see the solution

139. Write a Java program to get the index of the first number and the last number of a subarray where the sum of numbers is zero from a given array of integers. Go to the editor
Original Array : [1, 2, 3, -6, 5, 4]
Index of the subarray of the said array where the sum of numbers is zero: [0, 3]
Click me to see the solution

140. Write a Java program to merge all overlapping Intervals from a given a collection of intervals. Go to the editor
Sample Output: 1 6
8 10
15 20
Click me to see the solution

141. Write a Java program to check if a given string has all unique characters. Go to the editor
Sample Output: Original String : xyyz
String has all unique characters: false
Click me to see the solution

142. Write a Java program to check if two given strings are anagrams or not. Go to the editor
According to Wikipedia "An anagram is a word or phrase formed by rearranging the letters of a different word or phrase, typically using all the original letters exactly once. For example, the word anagram can be rearranged into nag a ram, or the word binary into brainy."
Sample Output: String-1 : wxyz
String-2 : zyxw
Check if two given strings are anagrams or not?: true
Click me to see the solution

143. Write a Java program to merge two given sorted lists. Go to the editor
Sample Output:
Merge Two Sorted ListsT:
1 2 3 7 9 13 40
Click me to see the solution

144. Write a Java program to remove all occurrences of a specified value in a given array of integers and return the new length of the array. Go to the editor
Sample Output:
Original array: [1, 4, 6, 7, 6, 2]
The length of the new array is: 4
Click me to see the solution

145. Write a Java program to remove the nth element from the end of a given list. Go to the editor

Sample Output:

```
Original node:
1 2 3 4 5
After removing 2nd element from end:
1 2 3 5
```

Click me to see the solution

146. Write a Java program to convert an sorted array to binary search tree. Maintain minimal height of the tree. Go to the editor

Sample Output:

```
2
1
4
6
5
3
```

Click me to see the solution

147. Write a Java program to find the number of bits required to flip to convert two given integers. Go to the editor

Sample Output:

```
2
```

Click me to see the solution

148. Write a Java program to find the index of the first unique character in a given string, assume that there is at least one unique character in the string. Go to the editor

Sample Output:

```
Original String: wresource
First unique character of the above: 0
```

Click me to see the solution

149. Write a Java program to check if a given string is a permutation of another given string. Go to the editor

Sample Output:

```
Original strings: xxyz yxzx
true
```

Click me to see the solution

150. Write a Java program to test if a binary tree is a subtree of another binary tree. Go to the editor

Sample Output:

```
Original strings: xxyz yxzx
true
```

Click me to see the solution