JAVA Program Exercises

1. Using command line argument to print your name
2. Java Program to Add two Numbers
3. Java Program to Check Even or Odd Number
4. Java Program to add two binary numbers
5. Java Program to add two complex numbers
6. Java Program to Multiply two Numbers
7. Java Program to check Leap Year
8. Java Program to check whether input character is vowel or consonant
9. Java Program to calculate compound interest
10. Java Program to calculate simple interest
11. Java Program to find quotient and remainder
12. Java Program to calculate power of a number
13. write a program to declare the variables and print the values
14. write a program to print addition and subtraction ,multiplication and division of two no’s
15. write a program to print square of a given number
16. write a program to find the modules of 77 by 2
17. write a program to print name,dob ,mobile no and address.
18. Write a program to convert specified days into year,weeks,days
19. Write a program to calculate a bike average consummation from the given total distance travelled and spent fuel in liters .
20. Write a program to read amount and break the amount into smallest possible number of bank notes
21. Write a program to cnvert given interger in seconds to hours , minutes and seconds.
22. program that read 5 numbers and sum of all odd values between them that prints all even numbers between 1 and 50
23. program that reads two numbers and divide the first number by second number. If the division not possible print "Division not possible"
24. program to calculate the sum of all number not divisible by 12 between two given integer numbers
25. program to print a number, it’s square and cube in a line, starting from 1 and print n lines. Accept number of lines (n, integer) from the user.
26. program to read an array of length 6, change the first element by the last, the second element by the fifth and the third element by the fourth. Print the elements of the modified array.
27. Program that accepts principle, rate of interest, time and compute the simple interest.
28. program that accepts a distance in centimeters and prints the corresponding value in inches
29. program that swaps two numbers without using third variable
30. Program to reverse and print a given number.
31. Write a program to convert centigrade to farhieneat
32. Program to compute the sum of the two given integer values. If the two values are the same, then return triple their sum
33. reverse a given array of integers and length 5
34. Program to create a new array containing the middle elements from the two given arrays of integers, each length 5. **Expected Output:**

**Elements in original array are:**

**10, 20, -30, -40, 30**

**10, 20, 30, 40, 30**

**Elements in new array are: -30, 30**

1. program to create a new array taking the first and last elements of a given array of integers and length one or more.

**Expected Output:**

**Elements in original array are: 10, 20, 30, 40, 50**

**Elements in new array are: 10, 50**

1. program to check a given array of integers of length 3 and create a new array. If there is a 5 in the given array immediately followed by a 7 then set 7 to 1.

**Expected Output:**

**Elements in original array are: 1, 5, 7**

**Elements in new array are: 1, 5, 1**

1. program to compute the sum of the two given arrays of integers of length 3 and find the array which has the largest sum.

**Expected Output:**

**Elements in original array are: 10, 20, -30**

**Elements in original array are: 10, 20, 30**

**The array which has the largest sum.: 10, 20, 30**

1. create a new array from two given array of integers, each length 3.

**Expected Output:**

**Elements in original array1 are: 10, 20, 30**

**Elements in original array2 are: 40, 50, 60**

**New array: 10, 20, 30, 40, 50, 60**

1. program to create a new array of length 3 from a given array (length atleast 3) containing the elements from the middle of the array.

**Expected Output:**

**Elements in original array1 are: 1, 5, 7, 9, 11, 13**

**New array: 7, 9, 11**

1. Program to create new array from a given array of integers shifting all even numbers before all odd numbers.

Expected Output:

Elements in original array are: 1, 2, 5, 3, 5, 4, 6, 9, 11

Elements in new array are: 2, 4, 6, 3, 5, 1, 5, 9, 11

1. Program to convert a string to an unsigned long integer.

program to sort the elements of an array

**Test Data and Expected Output :**

**Input the number of elements to be stored in the array :5**

**Input 6 elements in the array :**

**element - 0 : 15**

**element - 1 : 26**

**element - 2 : 42**

**element - 3 : 82**

**element - 4 : 35**

1. program to integral quotient and remainder of a division.

**Test Data and Expected Output :**

**Input numerator : 2500**

**Input denominator : 235**

**quotient = 10, remainder = 150**

1. write a program to print variable defalut sizes
2. program to print all uppercase alphabets using while loop.
3. program to print all lowercase alphabets using while loop.
4. program to read an integer and print its multiplication table.
5. Program to check entered number is ZERO, POSITIVE or NEGATIVE until user does not want to quit.
6. Program to find factorial of a number.
7. program to print all leap years from 1 to N.
8. program to read age of 15 person and count total Baby age, School age and Adult age.
9. program to calculate compound interest.
10. program to print weekday of given date.
11. program to find the difference of two numbers
12. program to check whether number is Prime or Not
13. program in java to find LCM of any two numbers
14. program to check whether a number is a Strong Number or not
15. to find the length of a string without using the library function
16. Program to display reverse number and find sum of digits
17. program to check whether a character is VOWEL or CONSONANT using switch.
18. program to design calculator with basic operations using switch.

This program will read two integer numbers and perform basic operations like +, -, \*, / and % using switch case (this program is a simple calculator program with basic operations).

1. Write a program to calculate EMI .
2. Java program that prints the current time in GMT
3. Java program to compute body mass index (BMI)

**Test Data**

Input weight in pounds: 452

Input height in inches: 72

Expected Output:

Body Mass Index is 61.30159143458721

1. Write a Java program that accepts two integers from the user and then prints the sum, the difference, the product, the average, the distance (the difference between integer), the maximum (the larger of the two integers), the minimum (smaller of the two integers).

**Test Data**

Input 1st integer: 25

Input 2nd integer: 5

Expected Output :

Sum of two integers: 30

Difference of two integers: 20

Product of two integers: 125

Average of two integers: 15.00

Distance of two integers: 20

Max integer: 25

Min integer: 5

1. Write a Java program to sort a numeric array and a string array
2. Write a Java program to sum values of an array
3. Write a Java program to find the common elements between two arrays of integers
4. a Java program to remove the duplicate elements of a given array and return the new length of the array.
5. Sample array: [20, 20, 30, 40, 50, 50, 50]
6. After removing the duplicate elements the program should return 4 as the new length of the array.
7. Java program to create an array of its anti-diagonals from a given square matrix

Example:

Input :

1 2

3 4

Output:

[

[1],

[2, 3],

[4]

]

**JAVA STRINGS PROGRAMS**

Java Program to Convert char to String and String to Char

Java Program to find duplicate characters in a String

Java Program to check Palindrome String using Stack, Queue, For and While loop

Java Program to sort strings in alphabetical order

Java Program to reverse words in a String

Java Program to perform bubble sort on Strings

Java program to find occurrence of a character in a String

Java program to count vowels and consonants in a String

**Java Class & Objects**

1. Write a program to create a room class, the attributes of this class is roomno, roomtype, roomarea and ACmachine. In this class the member functions are setdata and displaydata.
2. Write a program create a class ‘simpleobject‘. Using constructor display the message.
3. Write a program to give the example for ‘this’ operator. And also use the ‘this’ keyword as return statement.
4. Create class named as ‘a’ and create a sub class ‘b’. Which is extends from class ‘a’. And use these classes in ‘inherit’ class.
5. Write a program to give the example for method overriding concepts.
6. Write a program to give the example for ‘super’ keyword.
7. Write a program to create a class named shape. In this class we have three sub classes circle, triangle and square each class has two member function named draw () and erase (). Create these using polymorphism concepts.
8. Write a program to give a simple example for abstract class.
9. Write a program to create interface A in this interface we have two method meth1 and meth2. Implements this interface in another class named MyClass.
10. Write a program to give example for multiple inheritance in Java.
11. Write a program to create interface named test. In this interface the member function is square. Implement this interface in arithmetic class.
12. Create one new class called ToTestInt in this class use the object of arithmetic class.
13. Create an outer class with a function display, again create another class inside the outer class named inner with a function called display and call the two functions in the main class.
14. Create class point with following instance variable and methods.
15. Instance variable: private int x,y
16. Constructors : public Point(), Point(int x, int y)
17. Methods : public void setX(int x), setY(int y), setXY(int x,int y)
18. Create class Number with only one private instance variable as a double primitive type. To include the following methods (include respective constructors) isZero( ), isPositive(), isNegative( ), isOdd( ), isEven( ),isPrime(), isAmstrong() the above methods return boolean primitive type.getFactorial(), getSqrt(), getSqr(), sumDigits(), getReverse() the above methods return double primitive type. void listFactor(), void dispBinary().
19. Write a program to create a package named mypack and import it in circle class.
20. Write a program to create a package named pl, and implement this package in ex1 class.

**Collection Questions**

1. Write a Java program to create a new array list, add some colors (string) and print out the collection
2. Write a Java program to search an element in a array list
3. Write a Java program to update specific array element by given element.
4. Write a Java program to sort a given array list.
5. Write a Java program of swap two elements in an array list
6. Write a Java program to join two array lists
7. Write a Java program to clone an array list to another array list
8. Write a Java program to trim the capacity of an array list the current list size
9. Write a Java program to print all the elements of a ArrayList using the position of the elements
10. Write a Java program to append the specified element to the end of a linked list
11. Write a Java program to iterate through all elements in a linked list.
12. Write a Java program to iterate through all elements in a linked list starting at the specified position
13. Write a Java program to insert the specified element at the specified position in the linked list
14. Write a Java program to insert elements into the linked list at the first and last position
15. Write a Java program to insert the specified element at the front of a linked list
16. Write a Java program to insert some elements at the specified position into a linked list
17. Write a Java program to shuffle the elements in a linked list
18. Write a Java program to remove and return the first element of a linked list.
19. Write a Java program to replace an element in a linked list
20. Write a Java program to test an linked list is empty or not.
21. Write a Java program to append the specified element to the end of a hash set.
22. Write a Java program to clone a hash set to another hash set
23. Write a Java program to convert a hash set to a List/ArrayList
24. Write a Java program to compare two sets and retain elements which are same on both sets
25. Write a Java program to remove all of the elements from a hash set
26. Write a Java program to create a new tree set, add some colors (string) and print out the tree set
27. Write a Java program to add all the elements of a specified tree set to another tree set
28. Write a Java program to find the numbers less than 7 in a tree set
29. Write a Java program to get the element in a tree set which is strictly greater than or equal to the given element.
30. Write a Java program to retrieve and remove the last element of a tree set
31. Write a Java program to create a new priority queue, add some colors (string) and print out the elements of the priority queue
32. Write a Java program to add all the elements of a priority queue to another priority queue.
33. Write a Java program to remove all the elements from a priority queue.
34. Write a Java program to retrieve the first element of the priority queue
35. Write a Java program to retrieve and remove the first element
36. Write a Java program to convert a Priority Queue elements to a string representation
37. Write a Java program to associate the specified value with the specified key in a HashMap
38. Write a Java program to count the number of key-value (size) mappings in a map.
39. Write a Java program to copy all of the mappings from the specified map to another map
40. Write a Java program to remove all of the mappings from a map.
41. Write a Java program to check whether a map contains key-value mappings (empty) or not.
42. Write a Java program to get a set view of the keys contained in this map.
43. Write a Java program to get a collection view of the values contained in this map.
44. Write a Java program to associate the specified value with the specified key in a Tree Map
45. Write a Java program to copy a Tree Map content to another Tree Map
46. Write a Java program to search a value in a Tree Map
47. Write a Java program to get all keys from the given a Tree Map
48. Write a Java program to delete all elements from a given Tree Map.
49. Write a Java program to get a reverse order view of the keys contained in a given map
50. Write a Java program to get NavigableSet view of the keys contained in a map
51. Write a Java program to remove and get a key-value mapping associated with the greatest key in this map
52. Write a Java program to get a portion of a map whose keys are greater than or equal to a given key
53. Write a Java program to get the least key greater than or equal to the given key. Returns null if there is no such key