

01. Write a Java program printing "Hello World!"
02. Write a Java program printing integers ($1 < n < 100$) divisible by 3 and 5.
03. Write a Java program to break an integer into a sequence of individual digits.

Test Data

Input six non-negative digits: 123456

Expected Output

1 2 3 4 5 6

04. Write a program in Java to display the pattern below.

Test Data

Input number of rows : 5

Expected Output :

1
12
123
1234
12345

05. Write a program in Java to display the multiplication table of a given integer.

Expected Output

5 X 0 = 0
5 X 1 = 5
5 X 2 = 10
5 X 3 = 15
5 X 4 = 20
5 X 5 = 25
...

06. Define a Class **PointBasic** describing a point on a 2D space (double x, y).
07. Define a Class **Point** describing a point on a 2D space (double x, y) and allowing the user to read and write the state of the point while keeping its attributes protected (public methods **getX()**, **getY()**, **setX()**, **setY()**).
08. Write a Java program printing the distance between 2 objects of class Point.
09. Define a Class **CircleBasic** describing a circle on a 2D space (double x, y, r).
10. Write a Java program verifying if a Point object is inside a CircleBasic object.
11. Define a Class **Circle** describing a circle on a 2D space (double x, y, r). The class must have a method **isInside(Point p)** returning true if Point p is inside the circle, false otherwise.
12. Write a java program to get the length of a String object.

13. Write a Java program to print a String object in reverse order.
14. Write a Java program to convert all the characters in a string to lowercase.
15. Write a Java program to find the shortest String of an array (String).
16. Write a Java program to reverse the order to elements of an array (String).
17. Write a Java program to find the index of an element in an array (String).
18. Write a Java program to find duplicate values of an array (String).
19. Write a Java program to test the equality of two arrays (String).
20. Write a Java Class ***StringProcessor*** combining the functionalities of exercises 15 – 19. In particular, each functionality is represented by a class method. Furthermore, the user must be able to add or remove String objects from the array.