

Java Programmes

1. Write a Java programme using the following steps.

- 1.1 Declare two instance variables.
- 1.2 Declare one instance method.
- 1.3 Call both instance variables into the instance method inside the print statement.
- 1.4 Declare the Main method.
- 1.5 Call the above instance method into the Main method and Run the programme.

2. Write a Java programme using the following steps.

- 2.1 Declare two static variables
- 2.2 Declare one static method
- 2.3 Call both static variables into the static method inside the print statement.
- 2.4 Declare the Main method.
- 2.5 Call the static method into the Main method and Run the programme.

3. Write a Java programme using the following steps.

- 3.1 Declare one instance and one static variable.
- 3.2 Declare one instance method.
- 3.3 Declare one static method.
- 3.4 Call both instance and static variables into both instance and static methods inside the print statement.
- 3.5 Declare the Main method.
- 3.6 Call both instance and static methods into the Main method and run the programme.

4. Write a Java programme using the following steps.

4.1 Declare two instance and two static variables.

4.2 Declare one instance method.

4.3 Declare one static method.

4.4 Call all four instance and static variables into both instance and static methods inside the print statement.

4.5 Declare the Main method.

4.6 Call both instance and static methods into the Main method and run the programme.

5. Write a program for a calculator with addition, subtraction, multiplication and division methods all with parameters and use string concatenation methods.(Note: Two static and Two instance methods.)

6. Write a program to enter any radius value of the circle and find out the area.(Formula of Area $A = \pi r^2$).

7. Write a program to insert any temperature value in degree Fahrenheit and convert to degree Celsius ($(F - 32) \times 5/9 = 0^\circ C$).

8. Write a program to calculate the area of a triangle.

9. Write a program to convert the upper case to lower case.

10. Write a Java program that takes a number as input and prints its multiplication table up to 10.

Test Data: Input a number: 8

Expected Output :

8 x 1 = 8

8 x 2 = 16

8 x 3 = 24

...

8 x 10 = 80

11. Write a Java program to display the following pattern.

Sample Pattern :

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

12. Write a Java program to compute the specified expressions and print the output.

Test Data:

$((25.5 * 3.5 - 3.5 * 3.5) / (40.5 - 4.5))$

Expected Output : 2.1388888888888889

13. Write a Java program that takes three numbers as input to calculate and print the average of the numbers.

14. Write a Java program to print the area and perimeter of a rectangle.

Test Data:

Width = 5.5 Height = 8.5

Expected Output:

Area is $5.6 * 8.5 = 47.60$

Perimeter is $2 * (5.6 + 8.5) = 28.20$

15. Write a Java program to swap two variables.

16. Write a Java program to add two binary numbers.

Input Data:

Input first binary number: 10

Input second binary number: 11

Expected Output:

Sum of two binary numbers: 101

17. Write a Java program to convert a decimal number to binary number.

Input Data:

Input a Decimal Number : 5

Expected Output

Binary number is: 101

18. Write a Java program to print the sum (addition), multiply, subtract, divide and remainder of two numbers.

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

19. Write a Java program to convert a given string into lowercase.

Sample Input: THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG.

Output: the quick brown fox jumps over the lazy dog.

20. Write a Java Program to print as below.

```
"-----+"
"|                                     |"
"|          CORNER STORE             |"
"|                                     |"
"| 2015-03-29  04:38PM                |"
"|                                     |"
"| Gallons:          10.870           |"
"| Price/gallon: $ 2.089              |"
"|                                     |"
"| Fuel total:   $ 22.71               |"
"|                                     |"
"-----+"
```