

JAVA PRACTICE EXERCISES

Java basics

1. Write a Java program to print 'Hello' on screen and your name on a separate line.

Expected Output :

Hello

Alexandra Abramov

2. Write a Java program to print the sum of two numbers.

Test Data:

74 + 36

Expected Output :

110

3. Write a Java program that accepts four integers from the user and prints equal if all four are equal, and not equal otherwise.

Sample Output:

Input first number: 25

Input second number: 37

Input third number: 45

Input fourth number: 23

Numbers are not equal!

4. Write a Java program that accepts two double variables and test if both strictly between 0 and 1 and false otherwise.

Sample Output:

Input first number: 5

Input second number: 1

false

Data Types

1. Write a Java program to convert temperature from Fahrenheit to Celsius degrees.

Test Data

Input a degree in Fahrenheit: 212

Expected Output:

212.0 degree Fahrenheit is equal to 100.0 in Celsius

2. Write a Java program that reads a number in inches and converts it to meters.

Note: One inch is 0.0254 meter.

Test Data

Input a value for inch: 1000

Expected Output :

1000.0 inch is 25.4 meters

3. Write a Java program to convert minutes into years and days.

Test Data

Input the number of minutes: 3456789

Expected Output :

3456789 minutes is approximately 6 years and 210 days

4. Write a Java program that accepts two integers from the user and prints the sum, the difference, the product, the average, the distance (the difference between the integers), the maximum (the largest of the two integers), and the minimum (the smallest 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

Conditional Statements

1. Write a Java program to get a number from the user and print whether it is positive or negative.

Test Data

Input number: 35

Expected Output :

Number is positive

2. Write a Java program to solve quadratic equations (use if, else if and else).

Test Data

Input a: 1

Input b: 5

Input c: 1

Expected Output :

The roots are -0.20871215252208009 and -4.7912878474779195

3. Write a Java program that takes three numbers from the user and prints the greatest number.

Test Data

Input the 1st number: 25

Input the 2nd number: 78

Input the 3rd number: 87

Expected Output :

The greatest: 87

4. Write a Java program to find the number of days in a month.

Test Data

Input a month number: 2

Input a year: 2016

Expected Output :

February 2016 has 29 days

5. Write a Java program that takes a year from the user and prints whether it is a leap year or not.

Test Data

Input the year: 2016

Expected Output :

2016 is a leap year

Recursive Methods

1. Write a Java recursive method to calculate the factorial of a given positive integer.
2. Write a Java recursive method to calculate the sum of all numbers from 1 to n.
3. Write a Java recursive method to calculate the exponentiation of a number (base) raised to a power (exponent).
4. Write a Java recursive method to find the greatest common divisor (GCD) of two numbers.

Java arrays

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 calculate the average value of array elements.
4. Write a Java program to find the maximum and minimum value of an array.

JAVA METHODS

1. Write a Java method to find the smallest number among three numbers.

Test Data:

Input the first number: 25

Input the Second number: 37

Input the third number: 29

Expected Output:

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The smallest value is 25.0
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2. Write a Java method to compute the average of three numbers.

Test Data:

Input the first number: 25

Input the second number: 45

Input the third number: 65

Expected Output:

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The average value is 45.0
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4. Write a Java method to count all vowels in a string.

Test Data:

Input the string: SPOOKS

Expected Output:

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Number of Vowels in the string: 2
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Write a Java method to compute the future investment value at a given interest rate for a specified number of years.

Sample data (Monthly compounded) and Output:

Input the investment amount: 1000

Input the rate of interest: 10

Input number of years: 5

Expected Output:

Years	FutureValue
1	1104.71
2	1220.39
3	1348.18
4	1489.35
5	1645.31

