1>WAP in Java to print the Fibonaaci series

PROGRAM :

**package** Assignment1;

**import** java.util.Scanner;

**public** **class** FibonaaciSeries {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

System.***out***.print("Enter the number: ");

**int** n = sc.nextInt();

**int** a = 0;

**int** b = 1;

System.***out***.print("Fibonacci Series: " + a + " " + b);

**for** (**int** i = 2; i < n; i++) {

**int** c = a + b;

System.***out***.print(" " + c);

a = b;

b = c;

}

sc.close();

}

}

OUTPUT :

Enter the number: 7

Fibonacci Series: 0 1 1 2 3 5 8

2>WAP in Java to check if a number is prime or not

PROGRAM:

**package** Assignment1;

**import** java.util.Scanner;

**public** **class** primeOrNot {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

System.***out***.print("Enter a number: ");

**int** num = sc.nextInt();

**boolean** isPrime = **true**;

**if** (num <= 1) {

isPrime = **false**;

} **else** {

**for** (**int** i = 2; i \* i <= num; i++) {

**if** (num % i == 0) {

isPrime = **false**; // found a factor

**break**;

}

}

}

**if** (isPrime) {

System.***out***.println(num + " is a prime number.");

} **else** {

System.***out***.println(num + " is not a prime number.");

}

sc.close();

}

}

OUTPUT:

Enter a number: 56

56 is not a prime number.

Enter a number: 41

41 is a prime number.

3>WAP in Java to find the factorial of a number

PROGRAM:

**package** Assignment1;

**import** java.util.Scanner;

**public** **class** factorialOfaNumber {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

System.***out***.print("Enter a number: ");

**int** num = sc.nextInt();

**int** factorial = 1;

**for** (**int** i = 1; i <= num; i++) {

factorial = factorial \* i;

}

System.***out***.println("Factorial of " + num + " = " + factorial);

sc.close();

}

}

OUTPUT:

Enter a number: 4

Factorial of 4 = 24

4>WAP in Java to check if a number is armstrong or not

PROGRAM:

**package** Assignment1;

**import** java.util.Scanner;

**public** **class** amstrongorNot {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

System.***out***.print("Enter a number: ");

**int** number = sc.nextInt();

**int** originalNumber = number;

**int** result = 0;

**int** digits = 0;

**int** temp = number;

**while** (temp != 0) {

temp /= 10;

digits++;

}

temp = number;

**while** (temp != 0) {

**int** remainder = temp % 10;

result += Math.*pow*(remainder, digits);

temp /= 10;

}

**if** (result == originalNumber)

System.***out***.println(originalNumber + " is an Armstrong number.");

**else**

System.***out***.println(originalNumber + " is not an Armstrong number.");

sc.close();

}

}

OUTPUT:

Enter a number: 4

4 is an Armstrong number.

5>WAP in Java to find reverse of number and check whether palindrome or not

PROGRAM:

**package** Assignment1;

**import** java.util.Scanner;

**public** **class** palindromeNumber {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

System.***out***.print("Enter a number: ");

**int** number = sc.nextInt();

**int** originalNumber = number;

**int** reversedNumber = 0;

**while** (number != 0) {

**int** digit = number % 10;

reversedNumber = reversedNumber \* 10 + digit;

number /= 10;

}

System.***out***.println("Reversed number: " + reversedNumber);

**if** (originalNumber == reversedNumber)

System.***out***.println(originalNumber + " is a palindrome number.");

**else**

System.***out***.println(originalNumber + " is not a palindrome number.");

sc.close();

}

}

OUTPUT:

Enter a number: 156787651

Reversed number: 156787651

156787651 is a palindrome number.

6>WAP in Java to find largest bw five numbers in Java

PROGRAM:

**package** Assignment1;

**import** java.util.Scanner;

**public** **class** largestBwFiveNumbers {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Enter five numbers:");

**int** num1 = sc.nextInt();

**int** num2 = sc.nextInt();

**int** num3 = sc.nextInt();

**int** num4 = sc.nextInt();

**int** num5 = sc.nextInt();

**int** largest = num1;

**if** (num2 > largest)

largest = num2;

**if** (num3 > largest)

largest = num3;

**if** (num4 > largest)

largest = num4;

**if** (num5 > largest)

largest = num5;

System.***out***.println("The largest number is: " + largest);

sc.close();

}

}

OUTPUT:

Enter five numbers:

23

45

34

67

12

The largest number is: 67

7>WAP in Java to find the sum of all even number from 1 to 20

PROGRAM:

**package** Assignment1;

**public** **class** evenNumber {

**public** **static** **void** main(String[] args) {

**int** sum = 0;

**for** (**int** i = 1; i <= 20; i++) {

**if** (i % 2 == 0) {

sum += i;

}

}

System.***out***.println("The sum of all even numbers from 1 to 20 is: " + sum);

}

}

OUTPUT:

The sum of all even numbers from 1 to 20 is: 110

8>WAP in Java to find the Amount and SI for P=50000, t=6 years, r=4%

PROGRAM:

**package** Assignment1;

**public** **class** amountAndSI {

**public** **static** **void** main(String[] args) {

**int** P = 50000;

**int** t = 6;

**int** r = 4;

**int** SI = (P \* t \* r) / 100;

**int** Amount = P + SI;

System.***out***.println("Simple Interest: " + SI);

System.***out***.println("Amount: " + Amount);

}

}

OUTPUT:

Simple Interest: 12000

Amount: 62000

9>WAP in Java to find GCD of two numbers

PROGRAM:

**package** Assignment1;

**import** java.util.Scanner;

**public** **class** gcdBwTwoNumbers {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

System.***out***.print("Enter first number: ");

**int** num1 = sc.nextInt();

System.***out***.print("Enter second number: ");

**int** num2 = sc.nextInt();

**int** gcd = 1;

**for** (**int** i = 1; i <= num1 && i <= num2; i++) {

**if** (num1 % i == 0 && num2 % i == 0) {

gcd = i;

}

}

System.***out***.println("The GCD of " + num1 + " and " + num2 + " is: " + gcd);

sc.close();

}

}

OUTPUT:

Enter first number: 45

Enter second number: 78

The GCD of 45 and 78 is: 3

10>WAP in Java to find the sum of all odd number from 12 to 20

PROGRAM:

**package** Assignment1;

**public** **class** oddNumbers {

**public** **static** **void** main(String[] args) {

**int** sum = 0;

**for** (**int** i = 12; i <= 20; i++) {

**if** (i % 2 != 0)

{

sum += i;

}

}

System.***out***.println("The sum of all odd numbers from 12 to 20 is: " + sum);

}

}

OUTPUT:

The sum of all odd numbers from 12 to 20 is: 64

11>WAP in Java to print the Diamond pattern



PROGRAM:

**package** Assignment1;

**import** java.util.Scanner;

**public** **class** diamondPattern {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

System.***out***.print("Enter number of rows (for half diamond): ");

**int** n = sc.nextInt();

**for** (**int** i = 1; i <= n; i++) {

**for** (**int** j = i; j < n; j++) {

System.***out***.print(" ");

}

**for** (**int** j = 1; j <= (2 \* i - 1); j++) {

System.***out***.print("\*");

}

System.***out***.println();

}

**for** (**int** i = n - 1; i >= 1; i--) {

**for** (**int** j = n; j > i; j--) {

System.***out***.print(" ");

}

**for** (**int** j = 1; j <= (2 \* i - 1); j++) {

System.***out***.print("\*");

}

System.***out***.println();

}

sc.close();

}

}

OUTPUT:

Enter number of rows (for half diamond): 4

\*

\*\*\*

\*\*\*\*\*

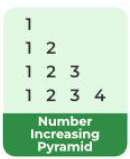
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12>WAP in Java to print the below



PROGRAM:

**package** Assignment1;

**public** **class** numberPattern {

**public** **static** **void** main(String[] args) {

**int** rows = 4; // number of rows

**for** (**int** i = 1; i <= rows; i++) {

**for** (**int** j = 1; j <= i; j++) {

System.***out***.print(j);

}

System.***out***.println();

}

}

}

OUTPUT:

1

12

123

1234

1>WAP in Java

Create a Class named Shape with length as instance variable , create three methods as square , rectangle , circle

and find out their respective areas

Create a object in main method and call these different methods with the instance of object

PROGRAM:

**package** Assignment1;

**import** java.util.Scanner;

**class** Shape {

**int** length;

**int** width;

**int** radius;

**void** square() {

**int** area = length \* length;

System.***out***.println("Area of Square: " + area);

}

**void** rectangle() {

**int** area = length \* width;

System.***out***.println("Area of Rectangle: " + area);

}

**void** circle() {

**int** area = 3 \* radius \* radius;

System.***out***.println("Area of Circle (approx): " + area);

}

}

**public** **class** shapesofObjects {

**public** **static** **void** main(String[] args) {

Scanner sc = **new** Scanner(System.***in***);

Shape shape = **new** Shape();

System.***out***.print("Enter side length of square: ");

shape.length = sc.nextInt();

shape.square();

System.***out***.print("Enter length of rectangle: ");

shape.length = sc.nextInt();

System.***out***.print("Enter width of rectangle: ");

shape.width = sc.nextInt();

shape.rectangle();

System.***out***.print("Enter radius of circle: ");

shape.radius = sc.nextInt();

shape.circle();

sc.close();

}

}

OUTPUT:

Enter side length of square: 45

Area of Square: 2025

Enter length of rectangle: 23

Enter width of rectangle: 43

Area of Rectangle: 989

Enter radius of circle: 34

Area of Circle (approx): 3468

2>WAP in Java

Create a class named school ,create name as their instance variables

Create a default constructor of this class which will have a print statement to display the name of school

Create a method inside the class which will display a message as "This School is based out of Kolkata"

Create a object under main method and call the constructor and the method

**package** Assignment1;

**class** School {

String name;

School() {

name = "ABC School";

System.***out***.println("School Name: " + name);

}

**void** displayMessage() {

System.***out***.println("This School is based out of Kolkata");

}

}

**public** **class** schoolName {

**public** **static** **void** main(String[] args) {

School school = **new** School();

school.displayMessage();

}

}

OUTPUT:

School Name: ABC School

This School is based out of Kolkata

3>WAP in Java to create a class named school

create name, address,strength as their instance variables

Create two constructor one with two variables and one with all the three variables

Create a method that will display all the three parameters

create two object of this class and call the respective methods

PROGRAM:

**package** Assignment1;

**class** School1 {

String name;

String address;

**int** strength;

School1(String name, String address) {

**this**.name = name;

**this**.address = address;

**this**.strength = 0;

}

School1(String name, String address, **int** strength) {

**this**.name = name;

**this**.address = address;

**this**.strength = strength;

}

**void** displayDetails() {

System.***out***.println("School Name: " + name);

System.***out***.println("Address: " + address);

System.***out***.println("Strength: " + strength);

}

}

**public** **class** twoSchool {

**public** **static** **void** main(String[] args) {

School1 school2 = **new** School1("ABC School", "Kolkata");

school2.displayDetails();

School1 school3 = **new** School1("XYZ School", "Delhi", 500);

school3.displayDetails();

}

}

OUTPUT:

School Name: ABC School

Address: Kolkata

Strength: 0

School Name: XYZ School

Address: Delhi

Strength: 500