Assignment 1

3. Divide Two Numbers Write a Java program to divide two numbers and print the result on the screen.

public class Div{

public static void main(String args[]){

int a=50, b=3;

int division;

division=a/b;

System.out.println(" Division of two numbers:" + division);

}

}

O/p:

Division of two numbers:16

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5. Multiply Two Numbers Write a Java program that takes two numbers as input and displays the product of the two numbers.

public class Mul{

public static void main(String args[]){

int a=25, b=5;

int multi;

multi=a\*b;

System.out.println( a + "\*" + b + "=" + multi);

}

}

0/p: 25\*5=125

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6. Basic Arithmetic Operations Write a Java program to print the sum, multiplication, subtraction, division, and remainder of two numbers.public class AllOp {

public static void main(String[] args) {

int num1 = 125;

int num2 = 24;

int add,sub,mul,div,rem;

add=num1 + num2;

sub= num1 - num2;

mul= num1 \* num2;

div = num1 / num2;

rem = num1 % num2;

System.out.println(num1 + " + " + num2 + " = " + add);

System.out.println(num1 + " - " + num2 + " = " + sub);

System.out.println(num1 + " x " + num2 + " = " + mul);

System.out.println(num1 + " / " + num2 + " = " + div);

System.out.println(num1 + " mod " + num2 + " = " + rem);

}

}

O/P:

125 + 24 = 149

125 - 24 = 101

125 x 24 = 3000

125 / 24 = 5

125 mod 24 = 5

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

public class Table {

public static void main(String[] args) {

int num1 = 8;

// calculate and print the multiplication table for given number

for (int i = 1; i <= 10; i++) {

System.out.println(num1 + " x " + (i) + " = " + (num1 \* i));

}

}

}

O/p

8 x 1 = 8

8 x 2 = 16

8 x 3 = 24

8 x 4 = 32

8 x 5 = 40

8 x 6 = 48

8 x 7 = 56

8 x 8 = 64

8 x 9 = 72

8 x 10 = 80

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8. Swap Two Numbers Write a Java program to swap the values of two variables without using a third variable.

class Swap {

public static void main(String[] args) {

int a = 10;

int b = 20;

System.out.println("Before Swapping");

System.out.println("First number is :" + a);

System.out.println("second number is :" + b);

System.out.println("\n");

a = a + b;

b = a - b;

a = a - b;

System.out.println("After Swapping");

System.out.println("First number is :" + a);

System.out.println("second number is :" + b);

}

}

o/p:

Before Swapping

First number is :10

second number is :20

After Swapping

First number is :20

second number is :10

9. Calculate the Area of a Circle

public class AreaOfCir {

public static void main(String[] args)

{

int r = 7;

double area = Math.PI \* r \* r;

//area = pi \* r \* r;

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

}

}

O/p: Area of circle: 153.93804002589985

10. Check If a Number Is Even or Odd

public class EvenOdd {

public static void main(String[] args)

{

int num = 15;

if (num % 2 == 0) {

System.out.println("The number " + num + " is even");

}

else {

System.out.println("The number " + num + " is odd");

}

}

}

O/p:

The number 15 is odd

11. Find the Largest of Three Numbers

public class LargestOfThree {

public static void main(String[] args) {

int n1 = 12, n2 = 45, n3 = 22;

if( n1 >= n2 && n1 >= n3)

System.out.println("the largest number is " + n1);

else if (n2 >= n1 && n2 >= n3)

System.out.println("the largest number is " + n2);

else

System.out.println("the largest number is " + n3);

}

}

O/p: the largest number is 45

12. Reverse a Number

class Reverse {

public static void main(String[] args) {

int num = 12345, rev = 0;

System.out.println("Original Number: " + num);

while(num > 0) {

int rem = num % 10;

rev = rev \* 10 + rem;

num /= 10;

}

System.out.println("The reverse of" + " 12345 " + "is " + rev);

}

}

o/p: The reverse of 12345 is 54321

13. Calculate the Average of Three Numbers

public class Average{

public static void main(String[] args) {

double num1 = 20,num2=40,num3=60;

double sum = num1 + num2 + num3;

double average = sum / 3;

System.out.println("The average of the three numbers is: " + average);

}

}

O/p: The average of the three numbers is: 40.0

14. Print the Fibonacci Series

class Fibo {

public static void main(String[] args) {

int n = 10, firstTerm = 0, secondTerm = 1;

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

System.out.print(firstTerm + ", ");

int nextTerm = firstTerm + secondTerm;

firstTerm = secondTerm;

secondTerm = nextTerm;

}

}

}

fib series

O/p: 0 1 1 2 3 5 8 13 21 34

15. Find the Factorial of a Number

public class Facto {

public static void main(String[] args) {

int num = 5;

int fact = 1;

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

{

fact = fact \* i;

//fact \*= i;

}

System.out.printf("Factorial of %d is %d", num, fact);

}

}

O/p: Factorial of 5 is 120

Q. Write a Java program to check whether a number is prime or not.

import java.util.Scanner;

public class Prime {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

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

int num = in.nextInt();

//int num = 17;

// System.out.println("The given number is: " + num);

int count = 0;

if(num == 2) {

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

}

else {

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

{

if(num % i == 0)

{

count++;

}

}

if(count == 2)

{

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

}

else

{

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

}

}

}

}

o/p: Enter the number: 17

17 is a prime number

17. Print the First N Natural Numbers

import java.util.Scanner;

public class Natural {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

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

int n = sc.nextInt();

int i = 1;

System.out.println(" Natural numbers: ");

for(; i<=n;i++){

System.out.println(i);

}

}

}

o/p: Enter the number: 6

Natural numbers:

1 2 3 4 5 6

19. Calculate the Power of a Number

class Power {

public static void main(String[] args) {

int base = 3, exponent = 4,temp;

temp=exponent;

int res = 1;

while (exponent != 0) {

res \*= base;

--exponent;

}

System.out.printf("%d raised to the power %d is %d " ,base,temp, res);

}

}

O/P

3 raised to the power 4 is 81