Assignment – 1

1. Write a program to display your name, branch, roll no, and college name on the computer screen.

class Main {  
 public static void main(String[] args) {  
 System.*out*.println("Name: Swapnaraj Mohanty");  
 System.*out*.println("Branch: CSE");  
 System.*out*.println("Roll No: 11");  
 System.*out*.println("College: Silicon University");  
 }  
}

Output:

Name: Swapnaraj Mohanty  
Branch: CSE  
Roll No: 11  
College: Silicon University

2. Write a program to display the addition result of two numbers 10.25 and 20.55 on the screen.

class Main {  
 public static void main(String[] args) {  
 double x = 10.25, y = 20.55;  
 double res = x + y;  
 System.*out*.println("Addition of " + x + " and " + y + " is " + res);  
 }  
}

Output:

Addition of 10.25 and 20.55 is 30.8

3. Write a program to input two floating point numbers through the keyboard and display their sum.

import java.util.Scanner;  
class Main {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter two floating point numbers: ");  
 double x = sc.nextDouble();  
 double y = sc.nextDouble();  
 double res = x + y;  
 System.*out*.println("The sum of " + x + " and " + y + " is " + res);  
 }  
}

Output:

Enter two floating point numbers: 10.25 20.55  
The sum of 10.25 and 20.55 is 30.8

4. Write a program to swap two numbers without using a third variable.

import java.util.Scanner;  
class Main {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter two numbers x and y: ");  
 int x = sc.nextInt();  
 int y = sc.nextInt();  
 x += y;  
 y = x - y;  
 x -= y;  
 System.*out*.println("After swapping x: " + x + " and y: " + y);  
 }  
}

Output:

Enter two numbers x and y: 10 20  
After swapping x: 20 and y: 10

5. Write a program to check a number is odd or even.

import java.util.Scanner;  
class Main {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter a number: ");  
 int num = sc.nextInt();  
  
 if (num % 2 == 0) {  
 System.*out*.println(num + " is even number");  
 } else {  
 System.*out*.println(num + " is odd number");  
 }  
 }  
}

Output:

Enter a number: 7  
7 is odd number

6. Write a program to input the marks of a student in three different subjects and then display the average mark.

import java.util.Scanner;  
class Main {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter your marks in English: ");  
 double english = sc.nextDouble();  
 System.*out*.print("Enter your marks in Maths: ");  
 double maths = sc.nextDouble();  
 System.*out*.print("Enter your marks in Science: ");  
 double science = sc.nextDouble();  
 double average = (english + maths + science) / 3;  
 System.*out*.println("The average marks in 3 subjects is " + average);  
 }  
}

Output:

Enter your marks in English: 91  
Enter your marks in Maths: 95  
Enter your marks in Science: 97  
The average marks in 3 subjects is 94.33333333333333

7. Write a program to input the time value in seconds and then display it in the hour: minute: second format using the modulus operator (%).  
For example, INPUT: Enter the time in second: 3610  
 OUTPUT: 1 hour: 0 minutes: 10 seconds

import java.util.Scanner;  
class Main {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter time in seconds: ");  
 int seconds = sc.nextInt();  
 int hours = seconds / 3600;  
 seconds %= 3600;  
 int minutes = seconds / 60;  
 seconds %= 60;  
 System.*out*.println(hours + " hours: " + minutes + " minutes: " + seconds + " seconds");  
 }  
}

Output:

Enter time in seconds: 3610  
1 hours: 0 minutes: 10 seconds

8. Write a program to reverse a number.

import java.util.Scanner;  
class Main {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter a number: ");  
 int num = sc.nextInt();  
 int reversed = 0;  
  
 while (num != 0) {  
 reversed = reversed \* 10 + (num % 10);  
 num /= 10;  
 }  
 System.*out*.println("The reversed number is " + reversed);  
 }  
}

Output:

Enter a number: 1597  
The reversed number is 7951

9. Write a program to check a number is prime or not.

import java.util.Scanner;  
class Main {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter a number: ");  
 int num = sc.nextInt();  
  
 for (int i = 2; i <= num / 2; i++) {  
 if (num % i == 0) {  
 System.*out*.println(num + " is not a prime number");  
 return;  
 }  
 }  
 System.*out*.println(num + " is a prime number");  
 }  
}

Output:

Enter a number: 7  
7 is a prime number

10. Write a program to find out the sum of the individual digits of a number.

import java.util.Scanner;  
class Main {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter a number: ");  
 int num = sc.nextInt();  
 int sum = 0;  
  
 while (num != 0) {  
 sum += num % 10;  
 num /= 10;  
 }  
 System.*out*.println("The sum of the digits is " + sum);  
 }  
}

Output:

Enter a number: 1597  
The sum of the digits is 22

11. Write a program to check whether an inputted number is positive or negative.

import java.util.Scanner;  
class Main {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter a number: ");  
 int num = sc.nextInt();  
  
 if (num < 0) {  
 System.*out*.println(num + " is negative number");  
 } else {  
 System.*out*.println(num + " is positive number");  
 }  
 }  
}

Output:

Enter a number: -7  
-7 is negative number

12. Write a program to test whether a number is positive, negative or equal to zero.

import java.util.Scanner;  
class Main {  
 public static void main(String[] args) {  
 Scanner sc = new Scanner(System.*in*);  
 System.*out*.print("Enter a number: ");  
 int num = sc.nextInt();  
  
 if (num < 0) {  
 System.*out*.println(num + " is negative number");  
 } else if (num > 0) {  
 System.*out*.println(num + " is positive number");  
 } else {  
 System.*out*.println(num + " is a zero");  
 }  
 }  
}

Output:

Enter a number: 0  
0 is a zero