Q1. Write a java program to find largest number from given three numbers.

import java.util.Scanner;

public class LargestNumber {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

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

int num1 = scanner.nextInt();

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

int num2 = scanner.nextInt();

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

int num3 = scanner.nextInt();

int largest = num1;

if (num2 > largest) {

largest = num2;

}

if (num3 > largest) {

largest = num3;

}

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

}

}

Q2. Write a java program which define class Employee with data member as name and

salary. Write accept() and display() methods in class.

import java.util.Scanner;

class Employee {

String name;

double salary;

void accept() {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter name: ");

name = scanner.nextLine();

System.out.print("Enter salary: ");

salary = scanner.nextDouble();

}

void display() {

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

System.out.println("Employee Salary: " + salary);

}

}

public class EmployeeTest {

public static void main(String[] args) {

Employee emp = new Employee();

emp.accept();

emp.display();

}

}

Q3. Write a java program to find factorial of given no.

import java.util.Scanner;

public class Factorial {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

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

int number = scanner.nextInt();

long factorial = 1;

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

factorial \*= i;

}

System.out.println("Factorial of " + number + " is: " + factorial);

}

}

Q4. Write a java program to create a class Math which makes addition, subtraction,

multiplication and division of given two nos..

import java.util.Scanner;

class MathOperations {

public int add(int a, int b) {

return a + b;

}

public int subtract(int a, int b) {

return a - b;

}

public int multiply(int a, int b) {

return a \* b;

}

public double divide(int a, int b) {

if (b != 0) {

return (double) a / b;

} else {

System.out.println("Cannot divide by zero.");

return 0;

}

}

}

public class MathTest {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

MathOperations math = new MathOperations();

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

int num1 = scanner.nextInt();

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

int num2 = scanner.nextInt();

System.out.println("Addition: " + math.add(num1, num2));

System.out.println("Subtraction: " + math.subtract(num1, num2));

System.out.println("Multiplication: " + math.multiply(num1, num2));

System.out.println("Division: " + math.divide(num1, num2));

}

}

Q5.Write a java program to calculate volume of Sphere.

import java.util.Scanner;

public class SphereVolume {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the radius of the sphere: ");

double radius = scanner.nextDouble();

double volume = (4.0 / 3) \* Math.PI \* Math.pow(radius, 3);

System.out.println("Volume of the sphere is: " + volume);

}

}

Q6. Write a java program to create a class called Vehicle with a method called drive(). Create a

subclass called Car that overrides the drive() method to print &quot;Repairing a car.

class Vehicle {

void drive() {

System.out.println("Driving a vehicle.");

}

}

class Car extends Vehicle {

@Override

void drive() {

System.out.println("Repairing a car.");

}

}

public class VehicleTest {

public static void main(String[] args) {

Vehicle myCar = new Car();

myCar.drive();

}

}

Q7. Write a java program to accept temperature in Celsius and convert into Fahrenheit.

import java.util.Scanner;

public class CelsiusToFahrenheit {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter temperature in Celsius: ");

double celsius = scanner.nextDouble();

double fahrenheit = (celsius \* 9/5) + 32;

System.out.println("Temperature in Fahrenheit: " + fahrenheit);

}

}

Q8. Write a java program to enter amount and calculate simple interest and compound interest.

(Use BufferedReader).

import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

public class InterestCalculator {

public static void main(String[] args) throws IOException {

BufferedReader reader = new BufferedReader(new InputStreamReader(System.in));

System.out.print("Enter principal amount: ");

double principal = Double.parseDouble(reader.readLine());

System.out.print("Enter rate of interest: ");

double rate = Double.parseDouble(reader.readLine());

System.out.print("Enter time (in years): ");

double time = Double.parseDouble(reader.readLine());

double simpleInterest = (principal \* rate \* time) / 100;

double compoundInterest = principal \* Math.pow((1 + rate / 100), time) - principal;

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

System.out.println("Compound Interest: " + compoundInterest);

}

}

Q9. Write a java program Write a java program which define class Student with data member as the

name and age of the student. By using parameterized constructor, display the name and age of the

student.

class Student {

String name;

int age;

Student(String name, int age) {

this.name = name;

this.age = age;

}

void display() {

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

System.out.println("Student Age: " + age);

}

}

public class StudentTest {

public static void main(String[] args) {

Student student = new Student("John Doe", 20);

student.display();

}

}

Q10. Write a java program to accept radius from user and calculate area of Circle using final keyword.

import java.util.Scanner;

public class CircleArea {

public static void main(String[] args) {

final double PI = 3.14159;

Scanner scanner = new Scanner(System.in);

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

double radius = scanner.nextDouble();

double area = PI \* radius \* radius;

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

}

}

Q11. Write a java program to accept purchase price and selling price of a product and calculate

profit.

import java.util.Scanner;

public class ProfitCalculator {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter purchase price: ");

double purchasePrice = scanner.nextDouble();

System.out.print("Enter selling price: ");

double sellingPrice = scanner.nextDouble();

double profit = sellingPrice - purchasePrice;

System.out.println("Profit: " + profit);

}

}

Q12. Write a Java program to accept a number from command prompt and generate multiplication

table of a number.

public class MultiplicationTable {

public static void main(String[] args) {

if (args.length > 0) {

int number = Integer.parseInt(args[0]);

System.out.println("Multiplication table for " + number + ":");

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

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

}

} else {

System.out.println("Please provide a number as a command line argument.");

}

}

}

Q13. Write a java program to create a class called Adder with a method add() to add two

numbers. Use method overloading.

class Adder {

public int add(int a, int b) {

return a + b;

}

public double add(double a, double b) {

return a + b;

}

}

public class AdderTest {

public static void main(String[] args) {

Adder adder = new Adder();

System.out.println("Sum of integers: " + adder.add(5, 10));

System.out.println("Sum of doubles: " + adder.add(5.5, 10.5));

}

}

Q14. Write a java program Write a Java program to print the factors of a number.

import java.util.Scanner;

public class Factors {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

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

int number = scanner.nextInt();

System.out.println("Factors of " + number + " are:");

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

if (number % i == 0) {

System.out.print(i + " ");

}

}

}

}

Q15. Write a Java program using inheritance by creating classes for different laptop brands. Each

brand class should inherit from a base class ‘Laptop’ and each brand class should have its own

method ‘Show()’ to print its name.

class Laptop {

void show() {

System.out.println("This is a laptop.");

}

}

class Dell extends Laptop {

@Override

void show() {

System.out.println("This is a Dell laptop.");

}

}

class HP extends Laptop {

@Override

void show() {

System.out.println("This is an HP laptop.");

}

}

public class LaptopTest {

public static void main(String[] args) {

Laptop dell = new Dell();

dell.show();

Laptop hp = new HP();

hp.show();

}

}

Q16.Write a Java program to display Fibonacci series.

import java.util.Scanner;

public class Fibonacci {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

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

int terms = scanner.nextInt();

int a = 0, b = 1;

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

for (int i = 2; i < terms; i++) {

int next = a + b;

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

a = b;

b = next;

}

}

}

Q17.Write a Java program to print the sum of elements of the array.

import java.util.Scanner;

public class ArraySum {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

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

int n = scanner.nextInt();

int[] array = new int[n];

System.out.println("Enter the elements:");

for (int i = 0; i < n; i++) {

array[i] = scanner.nextInt();

}

int sum = 0;

for (int num : array) {

sum += num;

}

System.out.println("Sum of array elements: " + sum);

}

}

Q18. Write a Java program to accept days number from user and print a day name based on

number using switch statement.

import java.util.Scanner;

public class DayName {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter a number (1-7): ");

int day = scanner.nextInt();

switch (day) {

case 1:

System.out.println("Monday");

break;

case 2:

System.out.println("Tuesday");

break;

case 3:

System .out.println("Wednesday");

break;

case 4:

System.out.println("Thursday");

break;

case 5:

System.out.println("Friday");

break;

case 6:

System.out.println("Saturday");

break;

case 7:

System.out.println("Sunday");

break;

default:

System.out.println("Invalid input! Please enter a number between 1 and 7.");

}

}

}