1.
```
import java.util.Scanner;
public class Sum{
   public static void main(String[] args){
      Scanner scanner=new Scanner(System.in);
      System.out.println("Enter num 1: ");
      double num1=scanner.nextDouble();
      System.out.println("Enter num 2: ");
      double num2=scanner.nextDouble();

      double total=num1+num2;
      System.out.println("Total is: "+total);

   }
}
```

2.
```
import java.util.Scanner;
public class AgeCheck {
   public static void main(String[] args){
      Scanner scanner=new Scanner(System.in);
      System.out.println("Enter age: ");
      int age=scanner.nextInt();

      if (age>=18){
         System.out.println("Over 18");
      }
      else if(age>0 && age<18){
```

```
        System.out.println("Below 18");
      }
      else{
        System.out.println("Entered age is incorrect");

      }
    }

}
```

3.

```
import java.util.Scanner;
public class PassMark {
   public static void main(String[] args){
      Scanner scanner =new Scanner(System.in);
      System.out.println("Enter ICT 1 marks:");
      double ictMark=scanner.nextDouble();
      System.out.println("Enter CW marks: ");
      double cwMark=scanner.nextDouble();

      double finalmark=(ictMark+cwMark)/2;

      if (ictMark >= 30 && cwMark >= 30) {

         double finalMark = (ictMark + cwMark) / 2;


         if (finalMark >= 40) {
```

```
            System.out.println("You passed the module!");
            System.out.println("Final mark: " + finalMark);
        } else {
            System.out.println("You did not pass the module.");
            System.out.println("Final mark: " + finalMark);
        }
    } else {

        System.out.println("You failed because one or both marks are below 30.");
    }

    scanner.close();
  }
}
```

4.

```
import java.util.Scanner;

public class GradeCheck {
  public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);



    System.out.print("Enter your grade: ");
    int grade = scanner.nextInt();



    if (grade > 100 || grade < 40) {
```

```
            System.out.println("Invalid value");
        } else if (grade >= 70) {
            System.out.println("1st Class Honours (1)");
        } else if (grade >= 60) {
            System.out.println("2nd Class Honours Upper Division (2:i)");
        } else if (grade >= 50) {
            System.out.println("2nd Class Honours Lower Division (2:ii)");
        } else {
            System.out.println("3rd Class Honours (3)");
        }

        scanner.close();
    }
}
```

5.

```
import java.util.Scanner;

public class Calculator {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);


        System.out.print("Enter first number: ");
        double num1 = scanner.nextDouble();


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

```
double num2 = scanner.nextDouble();

System.out.print("Enter operator (+, -, *, /): ");
char operator = scanner.next().charAt(0);



double result;



switch (operator) {
   case '+':
      result = num1 + num2;
      System.out.println("Result: " + result);
      break;
   case '-':
      result = num1 - num2;
      System.out.println("Result: " + result);
      break;
   case '*':
      result = num1 * num2;
      System.out.println("Result: " + result);
      break;
   case '/':
      // Check for division by zero
      if (num2 != 0) {
```

```
            result = num1 / num2;
            System.out.println("Result: " + result);
        } else {
            System.out.println("Error: Division by zero is not allowed.");
        }
        break;
      default:
        System.out.println("Invalid operator! Please use +, -, *, or /.");
    }

    scanner.close();
  }
}
```

6.

```
import java.util.Scanner;
public class ExamEligible {
  public static void main(String[] args){
    Scanner scanner=new Scanner(System.in);

    System.out.println("Enter number of classes held: ");
    int ClassHeld=scanner.nextInt();

    System.out.println("Enter number of classes attended: ");
    int ClassAttend=scanner.nextInt();

    System.out.println("Did you had a Medical Emergency(Y/N): ");
    char Medical=scanner.next().charAt(0);
```

```
        double Percentage=((double)ClassAttend/ClassHeld)*100;

        if(Percentage<75){
          if(Medical == 'Y'|| Medical == 'y'){
             System.out.println("Able to sit to Exam ");
          }
          else{
          System.out.println("Not able to sit to Exam"+ "Your Attendance is: "+Percentage);
          }
        }
        else{
          System.out.println("Able to sit to Exam");
        }
        scanner.close();

    }

}
```

7.
```
import java.util.Scanner;
public class Bank {
    public static void main(String[] args){
        Scanner scanner =new Scanner(System.in);

        System.out.println("Enter Account Balance: ");
```

```
double balance=scanner.nextDouble();

while (true){
System.out.println("Enter number of your choice of transaction ");
System.out.println("1.Deposit");
System.out.println("2.Withdraw");
System.out.println("3.Check for Fraud");
System.out.println("4.Exit");

System.out.println("Enter Choice: ");
int choice=scanner.nextInt();

switch(choice){
  case 1:
  System.out.println("Enter amount to deposit: ");
  double deposit=scanner.nextInt();

  if(deposit>0){
    balance+=deposit;
    System.out.println("balance: "+balance);
  }else{
    System.out.println("Deposit amount should be positive");
  }
  break;

  case 2:
```

```
    System.out.println("Enter amount to withdraw: ");
    double withdraw=scanner.nextInt();

    if(balance<=withdraw){
        System.out.println("No Sufficiet Funds:");
    }else{
        balance-=withdraw;
        System.out.println("balance: "+balance);
    }
    break;

    case 3:
    if (balance < 100) {
        System.out.println("Warning: Your balance is below $100! Potential fraud risk.");
    } else {
        System.out.println("Your account balance is safe: $" + balance);
    }
    break;

    case 4:
    System.out.println("Thank you for transacting with us");

    default:
        System.out.println("Error: Invalid transaction type. Please select a valid option.");

}
```

```
    }

  }

}
```

8.

```
import java.util.Scanner;
import java.util.Random;

public class Game {
  public static void main(String[] args){
    Scanner scanner=new Scanner(System.in);

    System.out.println("0. ROCK");
    System.out.println("1. PAPER");
    System.out.println("2. SCISSORS");

    System.out.println("Enter choice as 0/1/2:");
    int userChoice=scanner.nextInt();

    int computerChoice=new Random().nextInt(3);
    String userChoiceStr="";
    String computerChoiceStr ="";

    if (userChoice == 0) {
      userChoiceStr = "Rock";
```

```
} else if (userChoice == 1) {
   userChoiceStr = "Paper";
} else if (userChoice == 2) {
   userChoiceStr = "Scissors";
} else {
   System.out.println("Invalid input. Please enter 0, 1, or 2.");
   return;
}



if (computerChoice == 0) {
   computerChoiceStr = "Rock";
} else if (computerChoice == 1) {
   computerChoiceStr = "Paper";
} else if (computerChoice == 2) {
   computerChoiceStr = "Scissors";
}



System.out.println("User chose: " + userChoiceStr);
System.out.println("Computer chose: " + computerChoiceStr);



if (userChoice == computerChoice) {
   System.out.println("It's a tie!");
```

```
        } else if (userChoice == 0 && computerChoice == 2) {
            System.out.println("User wins! Rock crushes Scissors.");
        } else if (userChoice == 2 && computerChoice == 1) {
            System.out.println("User wins! Scissors cuts Paper.");
        } else if (userChoice == 1 && computerChoice == 0) {
            System.out.println("User wins! Paper covers Rock.");
        } else if (computerChoice == 0 && userChoice == 2) {
            System.out.println("Computer wins! Rock crushes Scissors.");
        } else if (computerChoice == 2 && userChoice == 1) {
            System.out.println("Computer wins! Scissors cuts Paper.");
        } else if (computerChoice == 1 && userChoice == 0) {
            System.out.println("Computer wins! Paper covers Rock.");
        }


    }
}
```