

Question One:

```
import java.util.Scanner;

public class questionOne {
    public static int factorial(int num){
        if(num==2)
            return 2;
        return num*factorial(num-1);
    }
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter number: ");
        int number=sc.nextInt();
        int factorialNumber= factorial(number);
        System.out.println(factorialNumber);
    }
}
```

Question Two:

```
import java.util.Scanner;

public class questionTwo {
    public static void printFibonacci(int num){
        int fib1=1;
        int fib2=2;
        for(int i=1;i<=num;i++){

            for(int j=1;j<=i;j++){
                System.out.print(fib1+" ");
                int temp=fib2;
                fib2=fib1+fib2;
                fib1=temp;
            }
            System.out.println();
        }
    }
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter number: ");
        int number=sc.nextInt();
        printFibonacci(number);
    }
}
```

```
    }
}
```

Question Three:

```
import java.util.Scanner;

public class questionThree {
    public static void printNumberPattern(int number){
        for(int i=number;i>=1;i--){
            for(int s=i-1;s>=1;s--){
                System.out.print(" ");
            }
            for(int j=number;j>=i;j--){
                System.out.print(j);
            }
            for(int k=i+1;k<=number;k++){
                System.out.print(k);
            }
            System.out.println();
        }
        for(int i=1;i<number;i++){
            for(int s=1;s<=i;s++){
                System.out.print(" ");
            }
            for(int j=number;j>i;j--){
                System.out.print(j);
            }
            for(int k=number;k>i+1;k--){
                System.out.print(k);
            }
            System.out.println();
        }
    }
    public static void printStarPattern(int number){

    }
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter number: ");
        int num=sc.nextInt();
        printNumberPattern(num);
        printStarPattern(num);
    }
}
```

```
    }
}
```

Question Four:

```
import java.util.Scanner;

public class questionFour {
    public static void printBinary(int num){
        int changeNumber=num;

        while(changeNumber!=0){
            int rem=changeNumber%2;
            System.out.print(rem+" ");
            changeNumber/=2;
        }
    }

    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter number: ");
        int num=sc.nextInt();
        printBinary(num);
    }
}
```