

WEEK 2

4.1.

```
import java.util.Scanner;

public class pgm12{

    public static void main(String[] args) {

        Scanner sc=new Scanner(System.in);

        int n = sc.nextInt();

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

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

                if ((i + j) % 2 == 0) {

                    System.out.print("1 ");

                } else {

                    System.out.print("0 ");

                }

            }

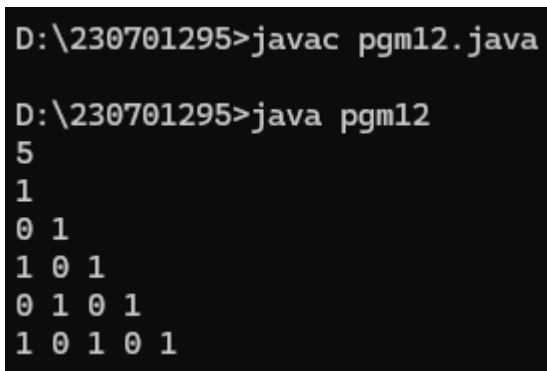
            System.out.println();

        }

    }

}
```

OUTPUT:



```
D:\230701295>javac pgm12.java

D:\230701295>java pgm12
5
1
0 1
1 0 1
0 1 0 1
1 0 1 0 1
```

4.2

```
import java.util.*;

public class pgm13 {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        int n = sc.nextInt();

        for (int i = n; i >= 1; i--) {

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

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

            }

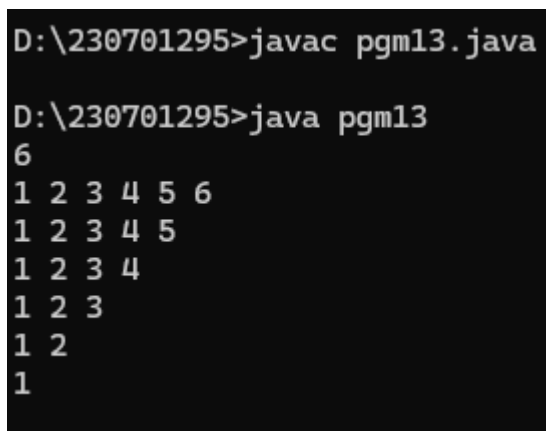
            System.out.println();

        }

    }

}
```

OUTPUT:



```
D:\230701295>javac pgm13.java

D:\230701295>java pgm13
6
1 2 3 4 5 6
1 2 3 4 5
1 2 3 4
1 2 3
1 2
1
```

```
5.import java.util.Scanner;

public class pgm14{

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        String day = scanner.next();

        switch (day) {

            case "monday":

            case "tuesday":

            case "wednesday":

            case "thursday":

            case "friday":

                System.out.println("It's a weekday");

                break;

            case "saturday":

            case "sunday":

                System.out.println("It's a weekend");

                break;

            default:

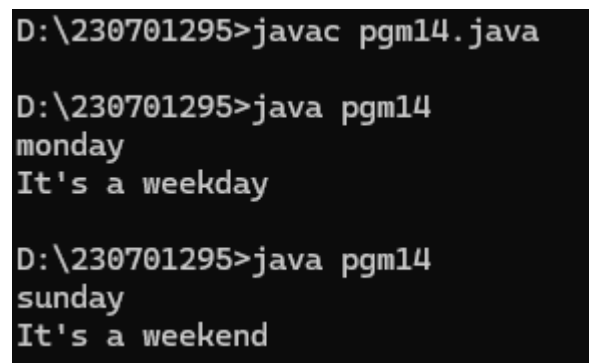
                System.out.println("Invalid day");

        }

    }

}
```

Output:



```
D:\230701295>javac pgm14.java

D:\230701295>java pgm14
monday
It's a weekday

D:\230701295>java pgm14
sunday
It's a weekend
```

6.

```
import java.util.Scanner;

public class pgm15{

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        int num = scanner.nextInt();

        int originalNum = num;

        int sum = 0;

        while (num != 0) {

            int digit = num % 10;

            sum += factorial(digit);

            num /= 10;

        }

        if (sum == originalNum) {

            System.out.println("Strong number");

        } else {

            System.out.println("Not a strong number");

        }

    }

    public static int factorial(int n) {

        int fact = 1;

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

            fact *= i;

        }

        return fact;

    }

}
```

Output:

```
D:\230701295>javac pgm15.java
```

```
D:\230701295>java pgm15
```

```
145
```

```
Strong number
```

```
D:\230701295>java pgm15
```

```
3
```

```
Not a strong number
```