

**1. Write a program(WAP) to print INEURON using pattern programming logic.**

**Source Code:**

```
public class Ineuron
{
    public static void main(String[] args)
    {
        int n = 7;
        for (int i = 0; i < n; i++)
        {
            for (int j = 0; j < n; j++)
            {
                if (i == 0 || i == n - 1 || j == ((n - 1) / 2))
                    System.out.print("*");
                else
                {
                    System.out.print(" ");
                }
            }
            System.out.print(" ");
            for (int j = 0; j < n; j++)
            {
                if (j == 0 || j == n - 1 || i == j)
                {
                    System.out.print("*");
                } else
                {
                    System.out.print(" ");
                }
            }
            System.out.print(" ");
            for (int j = 0; j < n; j++) {
                if (i == 0 || j == 0 || i == (n-1)/2 || i==n-1)
                {
                    System.out.print("*");
                } else
                {

```

```

        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++)
{
    if (j == 0 && i!=(n-1)|| j == n - 1 && i!=(n-1) || i == n-1 && j!=0 && j!=n-1)
    {
        System.out.print("*");
    } else
    {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++)
{
    if (j == 0 || i == 0 && j!=(n-1) || j==(n-1) && i!=0 && i!=(n-1)/2 || i==(n-
1)/2 && j!=(n-1))
    {
        System.out.print("*");
    } else
    {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++)
{
    if (j == 0 && i!=0 && i!=(n-1)|| i==0 && j!=0 && j!=(n-1) || j == (n - 1)
&& i!=0 && i!=(n-1) || i==(n-1) && j!=0 && j!=(n-1))
    {
        System.out.print("*");
    } else
    {
        System.out.print(" ");
    }
}
System.out.print(" ");
for (int j = 0; j < n; j++)

```

```

        {
            if (j == 0 || j == n - 1 || i == j)
            {
                System.out.print("*");
            } else
            {
                System.out.print(" ");
            }
        }
        System.out.println();
    }
}

```

## 2. Write a program to print

```

1 1 1 1
2 2 2 2
3 3 3 3
4 4 4 4

```

### Source Code:

```

public class Pattern2
{
    public static void main(String[] args)
    {
        int n = 4;
        for (int i = 1; i <= n; i++)
        {
            for (int j = 1; j <= n; j++)
            {

```

```
        System.out.print(i);  
    }  
    System.out.println();  
}  
}  
}
```

### 3. WAP to print

```

*****
*****  *****
*****      *****
*****      *****
*****      *****
**          *****
*              ***
*              **
*              *
*              *
*              *
*              *
*              *
*****

```

## Source Code:

```
public class Pattern3
{
    public static void main(String[] args)
    {
        int n = 10;
        for (int i = 0; i < n; i++)
        {
            for (int j = 0; j < n; j++)
            {
                if (i == 0 || j == 0 ||
                    j == n - 1 || i == n - 1 ||
                    i + j <= (n - 1) / 2 || j - i >= (n - 1) / 2)
                {
                    System.out.print("*");
                }
                else
                {
                    System.out.print(" ");
                }
            }

            System.out.println();
        }
    }
}
```

```

    }

}

```

#### 4. WAP to print

```

*               *
**            **
***         ***
****      ****
*****   *****
*****  *****
***** *****
*****

```

#### Source Code:

```

public class Pattern4 {

    public static void main(String[] args) {
        int n = 14;
        for (int i = 0; i < n; i++)
        {

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

                if (i == n-1 && j==0||j==n-1 && i==n-1 ||i-
                    j>=(n-1)/2||i+j>=(n-1)+(n-1)/2)
                {
                    System.out.print("*");
                }
                else

```

```

        {
            System.out.print(" ");
        }
    }
    System.out.println();
}
}
}

```

## 5. WAP to print

```

*****
*****
*****
*****
****
***
**
*
**
***
****
*****
*****
*****
*****
*****
*****

```

### Source Code:

```

public class Pattern5
{
    public static void main(String[] args)
    {
        int n = 14;
        for (int i = 0; i < n; i++)
        {
            for (int j = 0; j < n; j++)
            {
                if (i == n-1 || i==0||

```

```
        i+j<=(n-1)/2||i-j>=(n-1)/2
        {
            System.out.print("*");
        }
        else
        {
            System.out.print(" ");
        }
    }

    System.out.println();
}
}
```