

## Pattern program

Question 1.

ABBCCCDDDDDEEEEE.....so on

```
import java.util.*;
class Q1
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number of character print: ");
        int n = sc.nextInt();
        for(int i = 1;i<=n;i++)
        {
            for(int j = 1;j<=i;j++)
            {
                System.out.print((char)(64+i));
            }
        }
    }
}
```

Question 2.

Enter the number of character print:

```
ABCDEEDCBA
ABCD  DCBA
ABC   CBA
AB    BA
A     A
```

```
import java.util.*;
class Q2
{
```

```

public static void main(String[] args)
{
    Scanner sc = new Scanner(System.in);
    System.out.println("Enter the number of character print: ");
    int n = sc.nextInt();
    for(int i = 1;i<=n;i++)
    {
        for(int j = 1;j<=n-i+1;j++)
        {
            System.out.print((char)(64+j));
        }
        for(int j = 1;j<=i;j++)
        {
            System.out.print(" ");
        }
        for(int j = n-i+1;j>=1;j--)
        {
            System.out.print((char)(64+j));
        }
        System.out.println();
    }
}

```

Question 3.

```

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

```

```
import java.util.*;
```

```

public class Q3
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number of lines(lines should be even): ");
        int n = sc.nextInt();
        for(int i=1;i<=n;i++)
        {
            int p = i<=n/2?i:n-i+1;
            for(int j=1;j<=p;j++)
                System.out.print("*");
            for(int k=1;k<=2*(n/2-p);k++)
                System.out.print(" ");
            for(int j=1;j<=p;j++)
                System.out.print("*");
            System.out.println();
        }
    }
}

```

Question 4.

```

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

```

Question 5.

```

* * * * *
*           *

```

```

*           *
*           *
*           *
*           *
*           *

*           *
*****

```

```

import java.util.*;

public class Main
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number of lines: ");
        int n = sc.nextInt();
        for(int i=1;i<=n;i++)
        {
            if(i==1||i==n)
                for(int j=1;j<=n;j++)
                    System.out.print("* ");
            else
            {
                System.out.print("* ");
                for(int j=2;j<=n-1;j++)
                    System.out.print(" ");
                System.out.print("* ");
            }
            System.out.println();
        }
    }
}

```

Question 6.

```

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

```

```
import java.util.*;
```

```
public class Main
```

```
{
```

```
    public static void main(String[] args)
```

```
    {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Enter the number of lines: ");
```

```
        int n = sc.nextInt();
```

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

```
        {
```

```
            if(i==1||i==n)
```

```
                for(int j=1;j<=n;j++)
```

```
                    System.out.print("* ");
```

```
            else
```

```
            {
```

```
                System.out.print("* ");
```

```
                for(int j=2;j<=n-1;j++)
```

```
                {
```

```
                    if(j==i||j==n-i+1)
```

```
                        System.out.print("* ");
```

```
                    else
```

```
                        System.out.print(" ");
```

```
                }
```

```
                System.out.print("\n");
```

```
            }
```

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

```
        }
```

```

    }
}

```

Question 7.

```

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

```

```
import java.util.*;
```

```
public class Q7
```

```

{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter the number of lines (odd number): ");
        int n = sc.nextInt();
        for(int i=1;i<=n;i++)
        {
            for(int j=1;j<=n;j++)
            {
                if(j==i||j==n-i+1)
                    System.out.print("* ");
                else
                    System.out.print(" ");
            }
            System.out.println();
        }
    }
}

```