BUTTERFLY PROGRAM

public class Main{  
 public static void main(String[] args){  
 int a=4;  
 for(int i=1;i<=a;i++){  
 int star=i;  
 int space=2\*(a-i);  
 for (int j=1;j<=star;j++){  
 System.*out*.print("\*");  
 }  
 for (int j=1;j<=space;j++) {  
 System.*out*.print(" ");  
 }  
 for(int j=1;j<=star;j++)  
 {  
 System.*out*.print("\*");  
 }  
 System.*out*.println("");  
 }  
 for(int i=a-1;i>=1;i--){  
 int star=i;  
 int space=2\*(a-i);  
 for (int j=1;j<=star;j++){  
 System.*out*.print("\*");  
 }  
 for(int j=1;j<=space;j++){  
 System.*out*.print(" ");  
 }  
 for(int j=1;j<=star;j++)  
 {  
 System.*out*.print("\*");  
 }  
 System.*out*.println("");  
 }  
 }  
}

OUTPUT:

\* \*

\*\* \*\*

\*\*\* \*\*\*

\*\*\*\*\*\*\*\*

\*\*\* \*\*\*

\*\* \*\*

\* \*

PATTERN

public class pattern {  
 public static void main(String[] args){  
 int n=8;  
 for (int i=1;i<=n;i++){  
 if(i<=3){  
 System.*out*.print(" ");  
 for (int j=1;j<=i;j++)  
 System.*out*.print("\* ");  
 System.*out*.println("");  
 }  
 else if(i==4)  
 {  
 System.*out*.println(" \* \* \*");  
 }  
 else if(i==5)  
 {  
 System.*out*.println(" \* \* \*");  
 }  
 else {  
 System.*out*.print(" ");  
 for (int j=1;j<=(n-i+1);j++)  
 {  
 System.*out*.print("\* ");  
 }  
 System.*out*.println("");  
 }  
 }  
 }  
}

OUTPUT:

\*

\* \*

\* \* \*

\* \* \*

\* \* \*

\* \* \*

\* \*

\*