## Input Code

```matlab
% write a code for poisson distribution
n = input("Enter the number of trials :- ");
p = input("Enter the probability of success :- ");
x = input("Enter the value of X :- ");
lambda = n*p;
ch = input("1.Less than equal to \n2.Greater than \n3.Equal to ");
sum1 = 0;t
if (ch==1)
    for i = 0:x
        c = (exp(-lambda))*((lambda)^i)/(factorial(i));
        sum1 = sum1 + c;
    end
    fprintf("The probability is :- %f",sum1);
end
if (ch==2)
    for i = x+1:n
        c = (exp(-lambda))*((lambda)^i)/(factorial(i));
        sum1 = sum1 + c;
    end
    fprintf("The probability is :- %f",sum1);
end
if (ch==3)
    c = (exp(-lambda))*((lambda)^i)/(factorial(i));
    fprintf("The probability is :- %f",c);
end
```

## Output

```
  Poisson_Distribution
Enter the number of trials :-
  100
Enter the probability of success :-
  0.05
Enter the value of X :-
  10
1.Less than equal to
2.Greater than
3.Equal to
  2
The probability is :- 0.013695
```