**Practical 18**

#include<stdio.h>

#include<math.h>

#include<stdlib.h>

#include<time.h>

main()

{

int r,n;

float p0,q0,tau,p,lower\_limit,upper\_limit;

printf("Enter the total number of times a dice is thrown:");

scanf("%d",&r);

printf("Enter the number of throws for which 3 or 4 is observed:");

scanf("%d",&n);

p0=(float)n/r;

q0=1-p0;

p=(float)1/3;

tau=(p0-p)/(sqrt(p0\*q0/n));

printf("The value of the test statistic is:%f",tau);

if(abs(tau)<1.96)

{

printf("\nWe fail to reject the null hypothesis");

}

else

{

printf("\nWe reject the null hypothesis");

}

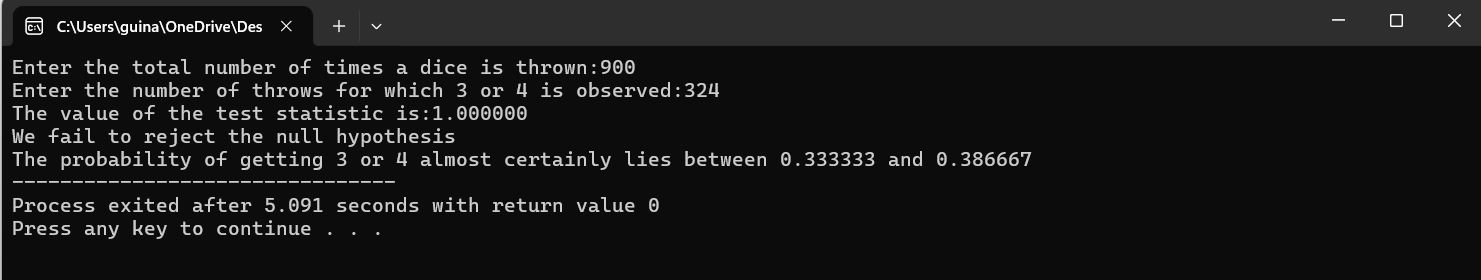
lower\_limit=p0-(tau\*(sqrt(p0\*q0/n)));

upper\_limit=p0+(tau\*(sqrt(p0\*q0/n)));

printf("\nThe probability of getting 3 or 4 almost certainly lies between %f and %f",lower\_limit,upper\_limit);

}

**OUTPUT :**

****