```
/* this is a program to compute sin(x) */
#include <stdio.h>
#include <math.h>
int main(void)
{
    int j,N,sign;
    long int fact;
    double x,sum;
    printf("Enter N");
    printf("\n");
    scanf("%d",&N);
    printf("Enter x");
    printf("\n");
    scanf("%lf",&x);
    sum=0.;
    fact=1;
    sign=1;
    for (j=1;j<N;j=j+1)
    {
        sum=sum+sign*pow(x,j)/fact;
        sign=-sign;
        fact=fact*(j+1)*(j+2);
        printf("\n %i",j);
        printf(" ");
        printf("%lf",sum);
    }
    printf("\n");
    return 0;
}
```