N!=1\*2\*3\*…\*N

S=1-х2/2!+x4/4!-x6/6!+…+(-1)nx2n/(2n)!+…

n=0 1 2 3 n

pow(x,y) ~ xy

pow(x,2) ~ x\*x

pow(-1,n) ----

fabs(x), abs(x) ~ |x|

#include<stdio.h>

#include<math.h>

int main() {

double S, p, x, a=0, b, h, eps=1; int n;

while(1+eps>1) eps/=2; b=2\*atan(1.); h=b/10;

printf(“----------------------------------------------------\n”);

printf(“| x | S | cos(x) | n |\n”);

printf(“----------------------------------------------------\n”);

for(x=a; x<=b; x+=h) {

n=1;

S=p=1;

while( p>eps || -p>eps ) { // fabs(р)> eps

p= -p\*x\*x/(2\*n-1)/(2\*n);

S+=p;

n++;

} // while

printf(“| %4.2f | %21.19f | %21.19f | %3d |\n”, x, S, cos(x), n);

} // for

printf(“----------------------------------------------------\n”);

return 0;

} // main