This question requires writing a program to calculate the sum of the sequence part 1-1/4 + 1/7-1/10 + ... until the absolute value of the last item is not greater than the given precision eps.

Input format:

Enter a positive real number eps in one line.

Output format:

In one line, output the partial sum value S in the format of "sum = S", accurate to six decimal places. The title guarantees that the calculation result does not exceed the double precision range.

Input example 1:

4E-2 Note, this is scientific notation

No blank line at the end

Output example 1:

sum = 0.854457

No blank line at the end

Input example 2:

0.02

Output sample 2:

sum = 0.826310

Code：

#include <stdio.h>

#include <math.h>

int main()

{

double exp; Floating point numbers can record scientific notation

scanf("%lf",&exp);

int i,l=1;

double sum=0,t;

for(i=1;;i+=3)

{

t=1.0/i\*l;

sum+=t;

if(fabs(t)<=exp) break;

l=-l;

}

printf("sum = %.6lf\n",sum);

return 0;

}