Find the area of a pie with 1 m radius using [Leibniz formula for π](https://en.wikipedia.org/wiki/Leibniz_formula_for_%CF%80) with the accuracy ranging from 0 to999999, where accuracy means the number of iterations.

The answer should be rounded to 6 decimal places.

**Example:**

* pie(0) = 4
* pie(999999) = 3.141592
* **[input] integer accuracy**
  + The number of iterations, 0 ≤ accuracy ≤ 99999.
* **[output] float**
  + The pie area rounded to 6 decimal places.

<https://codefights.com/challenge/dCQ2BmmCwHKqntQ8y>

#include <iostream>

#include <stdio.h>

#include <conio.h>

double pie(int accuracy) {

double sumatoria = 0;

int den = 1;

int prod = 1;

for (int n = 0; n <= accuracy; n++)

{

double t = (1 / (double)den);

sumatoria = sumatoria + (t \* (prod));

prod \*= -1;

den = den + 2;

}

return sumatoria \* 4;

}

int main(){

double pi = pie(999999);

printf("\n%f", pi);

getch();

return 0;

}