```
// Zufallszahlen
#include <iostream>
#include <cmath>
#include <cstdlib>
using namespace std;


double randa () {
      static int w = 654321;
      static const int p = 9999991;              // Primzahl
      static const __int64 multi = 738757;   // Primitives
                                                        // Element zu p
      w = (int) ((multi * w) % p);
return double (w)/ double (p);
}//randa



int main () {

      cout << "Berechnung von Pi über Kreisfläche."
            << endl << endl;
      int z = 0;
      for (int i = 1;  i <= 100000;  ++i) {
            double x = randa ();
            double y = randa ();
            if  ((x*x + y*y) <= 1)
                  ++z;
            if  (i % 10000 == 0)
                  cout << i << ":\t"
                  << "pi ?= " << 4.0*z / (1.0*i) << endl;
      }
```

```
      cout << endl << endl
            << "Berechnung von Pi über Kugelvolumen."
            << endl << endl;
      int za = 0;
      for (int i = 1;  i <= 100000;  ++i) {
            double x = randa ();
            double y = randa ();
            double z = randa ();
            if  ((x*x + y*y +z*z) <= 1)
                  ++za;
            if  (i % 10000 == 0)
            cout << i << ":\t"
                  << "pi ?= " << 6.0*za / (1.0*i) << endl;
      }


system ("PAUSE");
return 0;
}//main
```

/* Ausgabe

Berechnung von Pi über Kreisfläche.

10000: pi ?= 3.1324
20000: pi ?= 3.1266
30000: pi ?= 3.1228
40000: pi ?= 3.1274
50000: pi ?= 3.13072
60000: pi ?= 3.13367
70000: pi ?= 3.13703
80000: pi ?= 3.1377
90000: pi ?= 3.1348
100000: pi ?= 3.1338

Berechnung von Pi über Kugelvolumen.

10000: pi ?= 3.1188
20000: pi ?= 3.117
30000: pi ?= 3.1174
40000: pi ?= 3.12375
50000: pi ?= 3.12696
60000: pi ?= 3.1212
70000: pi ?= 3.12077
80000: pi ?= 3.11678
90000: pi ?= 3.11913
100000: pi ?= 3.12246
***/**