

Zadanie 11  
Krzysztof Kozubek(c++)

## WYNIKI:

wymiar 0: objetosc kuli = 1

wymiar 1: objetosc kuli = 1

wymiar 2: objetosc kuli = 0.785339

wymiar 3: objetosc kuli = 0.523326

wymiar 4: objetosc kuli = 0.308287

wymiar 5: objetosc kuli = 0.164729

wymiar 6: objetosc kuli = 0.081382

wymiar 7: objetosc kuli = 0.037122

wymiar 8: objetosc kuli = 0.015808

wymiar 9: objetosc kuli = 0.006445

wymiar 10: objetosc kuli = 0.002507

## Kod programu:

```
#include<iostream>
#include<cstdlib>
#include<cmath>
using namespace std;
long int precision = 1000000;
double from0To1(){
    double result = (rand() % 100) ;
    return result / 100;
}
double circuitSphere(int size)
{
    long int trueShot = 0;
    for (long int i = 0; i< precision; i++)
    {
```

```

        double vLenght = 0;

        for (int z = 0; z < size; z++)
        {
            double random = from0To1();
            vLenght += (random - 0.5)*(random - 0.5);
        }
        vLenght = sqrt(vLenght);
        if (vLenght <= 0.5){trueShot++; }
    }
    return trueShot * 1.0 / precision;
}

int main(){
    for (int i = 1; i < 11; i++)
        cout << "wymiar " << i << ": objetosc kuli = " << circuitSphere(i) << endl;

    system("pause");
    return 0;
}

```