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#include <iostream>
#include <math.h>
using namespace std;

class kreis {
    double r;
    double pi(){ return 4.0*atan(1.0); }
public:
    kreis(double r=0.0):r(r){
        cout<<"kreis mit r = "<<this->r<<endl;
    }

    ~kreis(){ cout<<"Destruktor r="<<(*this).r<<endl; }

    double get_r(){ return r; }
    void set_r(double r){ this->r = r; }
    double u(){ return 2*pi()*r; }
    double A(){ return pi()*r*r; }
    double V(){ return 4.0/3.0*r*r*r*pi(); }
    double O(){ return 4.0*r*r*pi(); }
};

void main(){
    kreis k1(10.0), k2(k1), * k3 = new kreis(1.0);
    double r=0.0;
    cout<<"Radius r = "; cin>>r;
    cin.clear(); cin.ignore(INT_MAX, '\n');

    k2.set_r(r);
    cout<<"Umfang          = "<<k1.u()<<endl;
    cout<<"Flaeche          = "<<k1.A()<<endl;
    cout<<"Volumen          = "<<k1.V()<<endl;
    cout<<"Oberflaeche      = "<<k1.O()<<endl;

    k1 = k2;
    k2.~kreis();
    cout<<"Flaeche k2      = "<<k2.A()<<endl;
    cout<<"Umfang k3        = "<<k3->u()<<endl;
    cout<<"Volumen k3        = "<<(*k3).V()<<endl;
    cout<<"Oberflaeche      = "<<k3[0].O()<<endl;
    delete k3; k3 = 0;
    cin.get();
}
```

```
/*
kreis mit r = 10
kreis mit r = 1
Radius r = 1
Umfang          = 62.8319
Flaeche         = 314.159
Volumen         = 4188.79
Oberflaeche     = 1256.64
Destruktor kreis r =1
Flaeche k2      = 0
Umfang k3       = 6.28319
Volumen k3      = 4.18879
Oberflaeche     = 12.5664
Destruktor kreis r =1

Destruktor kreis r =0
Destruktor kreis r =1
*/
```