

**Полиморфизм**

```
// Programming 1. Sample at 2017-05-18-14-42.35
#include <stdio.h>

struct Shape
{
    virtual double s()=0;
};

struct Circle : public Shape
{
    Circle() {m_radius = 1.0;}
    double m_radius;
    double s() { return m_radius*m_radius*3.1415926536; }
};

struct Square : public Shape
{
    Square() { m_side = 2.0;}
    double m_side;
    double s() { return m_side*m_side; }
};

struct Triangle : public Shape
{
    Triangle() {m_base = m_hight = 4.0;}
    double m_base;
    double m_hight;

    double s() {return m_base*m_hight/2.0;}
};

int main(/*int c, char **v */)
{
    Shape* objects[4];
    Shape s;

    objects[0] = new Circle;
    objects[1] = new Circle;
    objects[2] = new Triangle;
    objects[3] = new Square;

    double s = 0.0;
    for(int i=0;i<4; ++i)
    {
        s+= objects[i]->s();
    }
}
```

```
printf("Total: %lf\n", s);  
  
return 0;  
}
```

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