

## Rozwiązania zadań 3 i 4:

```
(---1---)
#include <iostream>
using namespace std;
(---2---)
zespól(double r = 0., double i = 0.): re(r), im(i){}
zespól operator+(double d){return zespól(re+d, im);}
(---3---)
zespól operator+(int i, zespól c){
    zespól res;
    res.re = static_cast<double>(i) + c.re;
    res.im = c.im;
    return res;
}
ostream& operator<<(ostream& str, zespól c){
    str << "(" << c.re << ", " << c.im << ")";
    return str;
}
(---4---)
#include <iostream>
(---5---)
virtual
(---6---)
virtual
(---7---)
: public figura
(---8---)
virtual double pole() {return 0.5*podst*wys;}
virtual void wypisz() {cout << "Jestem trojkatem - moje pole :";}
(---9---)
wskf = & t2;
```

## Rozwiązania zadań 3 i 4 – pełny kod programu:

```
//(---1---)->
#include <iostream>
using namespace std;
//(---1---)<-

class zespol{
public:
    double re, im;
    //(---2---)->
    zespol(double r = 0., double i = 0.): re(r), im(i){}
    zespol operator+(double d){return zespol(re+d, im);}
    //(---2---)<-
};
//(---3---)->
zespol operator+(int i, zespol c){
    zespol res;
    res.re = static_cast<double>(i) + c.re;
    res.im = c.im;
    return res;
}
ostream& operator<<(ostream& str, zespol c){
    str << "(" << c.re << ", " << c.im << ")";
    return str;
}
//(---3---)<-

//(---4---)
class figura{
public:
    double podst, wys;
    figura(double p = 0., double w = 0.) : podst(p), wys(w){}
    //(---5---) double pole() = 0;
    virtual double pole() = 0;
    //(---6---) void wypisz()=0;
    virtual void wypisz()=0;
};
// class trojkat (---7---) {
class trojkat : public figura {
public:
    trojkat(double p = 0., double w = 0.): figura(p, w){}
    //(---8---)->
    virtual double pole() {return 0.5*podst*wys;}
    virtual void wypisz() {cout << "Jestem trojkatem - moje pole: ";}
    //(---8---)<-
};

int main()
{
    int i = -3;
    double d = 7.2;
    zespol z1, z2(1, -1);    // z1 = (0,0)
    cout << "z1 = " << z1 << endl;
    cout << "z2 = " << z2 << endl;
    z1 = z2 + d;
    z2 = i + z1;
    cout << "z1 = " << z1 << endl;
    cout << "z2 = " << z2 << endl;

    trojkat t1, t2(2, 5);
    figura * wskf;
    wskf = & t2; //(---9---)
    wskf->wypisz();
    cout << wskf->pole() << endl;

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