main.cpp

Run

Output

```cpp
#include <iostream>
using namespace std;

class Polygon {
    public:
        float width;
        float height;

        virtual float area() =0;
};

class rectangle : public Polygon {
    public:
        rectangle(float w, float h)
        {
            width = w;
            height = h;
        }
        float area()
        {
            return width * height;
        }
};

class triangle : public Polygon {
    public:
        triangle(float w, float h)
        {
            width = w;
            height = h;
        }
        float area()
        {
            return 0.5 * width * height;
        }
};

int main ()
{
    rectangle r1(50, 20);
    triangle t1(15, 20);

    Polygon *ptr;

    ptr = &r1;
    cout << "Rectangle Area: " << ptr->area
        () << endl;

    ptr = &t1;
    cout << "Triangle Area: " << ptr->area
        () << endl;

    return 0;
}
```

```
/tmp/VMNVqzOaVg.o
Rectangle Area: 1000
Triangle Area: 150


=== Code Execution Successful ===
```

main.cpp

Run

```cpp
#include <iostream>
using namespace std;

class A {
    public:
    int x;
    virtual void test() = 0;
};

class B: public A {
    public:
    int y;
};

class C: public B {
    public:
    int z;

    C (int x, int y, int z)
    {
        this->x = x;
        this->y = y;
        this->z = z;
    }

    void test() {
        cout << "x: " << x << endl;
        cout << "y: " << y << endl;
        cout << "z: " << z << endl;
    }
};

int main ()
{
    C c1(10, 20, 30);
    A *ptr;

    ptr = &c1;
    ptr->test();

    return 0;
}
```

Output

```
/tmp/ZL4meC2sTT.o
x: 10
y: 20
z: 30


=== Code Execution Successful ===
```