```cpp
#include <iostream>
#include <cmath>

class Triangle {
private:
    float base;
    float height;

public:
    // Constructor
    Triangle(float b, float h) : base(b), height(h) {}

    // Destructor
    ~Triangle() {
        std::cout << "Triangle object destroyed" << std::endl;
    }

    // Function to calculate area
    float area() {
        return 0.5 * base * height;
    }
};

int main() {
    float base, height;

    std::cout << "Enter the base and height of the triangle: ";
    std::cin >> base >> height;

    // Create triangle object
    Triangle tri(base, height);

    // Calculate and print area
    std::cout << "Area of the triangle: " << tri.area() << std::endl;

    return 0;
}
```