1. Construct a class named Tri, which contains three double-precision data members, namely the three sides of the triangle. Class functions should include constructor, perimeter function, area function, output function (output triangle edge, perimeter, and area information).
It is required to input the information of three sides of the triangle to determine whether the triangle is formed, if not, output the error information, and if so, call the output function to output the information

2. Design a cube class box, it can calculate and output the volume and surface area of the cube. requirement:
(1) Include member variable m_a (cube side length).
(2) It contains the functions seta (double a) (set the side length of cube), getvolume() (calculate volume), getarea() (calculate surface area).
(3) Contains the function display () to output the result of the calculation.
(4) Design the main function main () to test the box class.
Requirements: Create a Box, set the length, output area and volume.

3. Create a class named Toy, which includes four attributes: name, price, address, discount.(The default value of discount is 1.0)
The functions written include: constructor, get name function, get real price functions(real price is price multiplied by discount), get address function, get discount function, and output function (output name、real price、address).
Requirements: Create a Toy, enter a discount number, and display detailed Toy information after the discount.

4. Design a Rectangle class. requirement:
(1) Contains two member variables m_length and m_width, the default value of which is 1.
(2) Include the member function Perimeter() to calculate the perimeter of the rectangle, and Area() to calculate the area of the rectangle.
(3) The member functions setwidth() and getwidth() are used to set and get the value of m_width, and setlength() and getlength() are used to set and get the value of m_length. The Set...() function should verify that m_length and m_width are both floating numbers between 0.0 and 20.0.
Requirements: Create a Rectangle, set a set of correct length and width and a set of wrong length and width, verify and output the perimeter and area.

5. Write a program, input N student data, including student ID, name, grades, output these student data, and calculate the average score. Claim:
(1) Design a student class Stud, in addition to including student ID, name, and score data members, there are two static variables to store the total score and the number of people respectively.
(2) There are two common member functions setdata() and display(), which are used to assign and output data members respectively. There is also a static member function avg(), which is used to calculate the average score.
(3) Define an object array in the main() function to store the input student data.