

Triangle question:

Without functions:

```
#include <stdio.h>
#include <stdlib.h>
#include <math.h>
int main()
{
    double a,b,c;
    printf("enter the values of a,b,c");
    scanf("%lf%lf%lf", &a, &b, &c);
    if ((a+b>c) && (a+c>b) && (b+c>a)) {
        double s=(a+b+c)/2;
        double area= sqrt(s*(s-a)*(s-b)*(s-c));
        printf("The area of the triangle is: %lf", area);
    }
    else
        printf("The values entered do not form a triangle");
    return 0;
}
```

```
Others
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sing: "C:\Program Files\CodeBlocks\cb_console_runner.exe" "C:\Users\LENOVO\Desktop\Co
top\CodeBlocks Projects\practice\."
s terminated with status -1073741510 (0 minute(s), 12 second(s))
```

Blocks_Projects\practice\main.c

C/C++

Windows (CR+LF) WINDOWS-1256



With one function:

The screenshot shows the Code::Blocks IDE interface. The code editor window displays a C program named 'main.c'. The program includes headers for stdio.h, stdlib.h, and math.h. It defines a function 'Calcarea' that takes three double parameters (a, b, c) and prints a message asking for user input. The main function reads values for a, b, and c using scanf, then calls Calcarea. It returns 0. The Calcarea function checks if the inputs form a triangle (a+b>c, a+c>b, b+c>a). If true, it calculates the semi-perimeter s = (a+b+c)/2 and the area using the formula area = sqrt(s*(s-a)*(s-b)*(s-c)). It then prints the area. If the inputs do not form a triangle, it prints a warning message. The code editor has syntax highlighting and line numbers.

```
#include <stdio.h>
#include <stdlib.h>
#include <math.h>
void Calcarea (double a, double b, double c);
int main()
{
    double a,b,c;
    printf("enter the values of a,b,c");
    scanf("%lf%lf%lf", &a, &b, &c);
    Calcarea(a,b, c);
    return 0;
}

void Calcarea (double a, double b, double c)
{
    if ((a+b>c) && (a+c>b) && (b+c>a) )
    {
        double s=(a+b+c)/2;
        double area= sqrt(s*(s-a)*(s-b)*(s-c));
        printf("The area of the triangle is: %lf", area);
    }
    else
        printf("The values entered do not form a triangle");
}
```

& others

Code::Blocks X Search results X Ccc X Build log X Build messages
Microsoft\WindowsApps
Running: "C:\Program Files\CodeBlocks\cb_console_runner.exe" "C:\Users\LENOVO\Documents\CodeBlocks Projects\practice\."
Process terminated with status -1073741510 (0 minute(s), 9 second(s))

CodeBlocks_Projects\practice\main.c

C/C++

Windows (CR+LF) WINDO

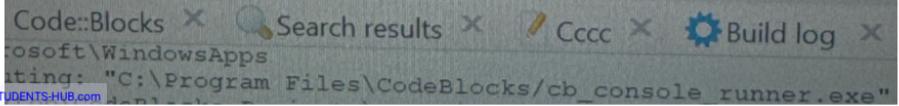


With two functions:

```
#include <stdio.h>
#include <stdlib.h>
#include <math.h>
void Calcarea (double a, double b, double c);
double S (double a, double b, double c);
int main()
{
    double a,b,c;
    printf("enter the values of a,b,c");
    scanf("%lf%lf%lf", &a, &b, &c);
    Calcarea(a,b, c);
    return 0;
}
double S (double a, double b, double c)
{
    double s=(a+b+c)/2;
    return s;
}

void Calcarea (double a, double b, double c)
{
    if ((a+b>c) && (a+c>b) && (b+c>a)) {
        double s= S(a,b,c);
        double area= sqrt(s*(s-a)*(s-b)*(s-c));
        printf("The area of the triangle is: %lf", area);
    }
    else
        printf("The values entered do not form a triangle");
}
```

others



Activity 2: Write a C program which takes three sides a , b and c of a triangle as input and calculates its area if these conditions are satisfied $a+b>c$, $b+c>a$, and $a+c>b$ (Help $a = \sqrt{s(s - a)(s - b)(s - c)}$), where $s=(a+b+c)/2$