

```
/** Program to Find Area of a Triangle using Hero's Formula **/

#include <stdio.h>
#include <math.h>

main()
{
    float a, b, c, s, area;

    back:
    printf("\nEnter three sides of a triangle: ");
    scanf("%f %f %f", &a, &b, &c);

    if (a==0 || b==0 || c==0)
    {
        printf("\nValue of any side should not be equal to
               zero\n");
        goto back;
    }

    if (a+b<c || b+c<a || c+a<b)
    {
        printf("\nSum of two sides should not be less than
               third\n");
        goto back;
    }

    s = (a + b + c) / 2;
    area = sqrt(s * (s - a) * (s - b) * (s - c));

    printf("\n\nArea of triangle: %.2f", area);
    getch();
}
```