## 1.1 Write a Python Program(with class concepts) to find the area of the triangle using the below formula.

area = (s*(s-a)*(s-b)*(s-c)) ** 0.5
Function to take the length of the sides of triangle from user should be defined in the parent
class and function to calculate the area should be defined in subclass.

In [1]:
```
class shapes:
    def __init__(self,a,b,c):
        self.a=a
        self.b=b
        self.c=c

class triangle(shapes):
    def __init__(self,a,b,c):
        super().__init__(a,b,c)
    def area(self):
        s=(self.a+self.b+self.c)/2
        a = (s*(s-self.a)*(s-self.b)*(s-self.c)) ** 0.5
        print('The area of the triangle is {0:0.2f}'.format(a))

s1=triangle(2,3,4)
s1.area()
```

```
The area of the triangle is 2.90
```

## 2.1 Write a Python program using function concept that maps list of words into a list of integers representing the lengths of the corresponding words

Hint: If a list [ ab,cde,erty] is passed on to the python function output should come as [2,3,4]
Here 2,3 and 4 are the lengths of the words in the list.

In [3]:
```
def list_of_lengths(words):
    return list(map(len, words))

words = ['Manoj', 'Kumar', 'Mishra']
print(list_of_lengths(words))
```

```
[5, 5, 6]
```

## 2.2 Write a Python function which takes a character (i.e. a string of length 1) and returns True if it is a vowel, False otherwise

In [4]:
```
def check_vowel():
    print("Please input a charater:- ",end="")
    char=input()
    vowels = "aeiou"
    if char.lower() not in vowels:
        return False
    return True
check_vowel()
```

```
Please input a charater:- r
```

Out[4]:
```
False
```

In [ ]:
```

```