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 [31]:  class Triangle:
              def __init__(self):
                  self.a=float(input("Enter side a; "))
                  self.b=float(input("Enter side b: "))
                  self.c=float(input("Enter side c: "))
```

```
In [32]:  class Area(Triangle):
              def area(self):
                  s=(self.a + self.b +self.c)/2
                  area=(s * ( s- self.a)*(s- self.b)*(s- self.c))**0.5
                  print("Area of triangle is :",area)


          a=Area()
          a.area()
```

```
Enter side a; 8
Enter side b: 5
Enter side c: 9
Area of triangle is : 19.8997487421324
```

Write a function filter_long_words() that takes a list of words and an integer n and returns the list of words that are longer than n

```
In [33]:  def filter_long_words(words,n):
              lst=[]
              for i in words:
                  if len(i)>n:
                      lst.append(i)
```

```
        print("Longest word are:",lst)
```

In [36]:
```
lst=["Ajit","Bharat","Gaurav","Deepika"]
filter_long_words(lst,4)
```

Longest word are: ['Bharat', 'Gaurav', 'Deepika']

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

In [37]:
```
def words_len(words):
    return len(words)
```

In [40]:
```
l=["Ajit", "Bharat","Dattatray"]
result=map(words_len,l)
list(result)
```

Out[40]: [4, 6, 9]

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 [42]:
```
def vowel_check(char):
    if char=="a" or char=="e" or char=="i" or char=="o" or char=="u":
        return True
    else:
        return False

vowel_check(input("Enter your charatcter:  "))
```

Enter your charatcter: e

Out[42]: True

In [ ]: