

In [25]:

```
# 1.1
class Triangle:
    def __init__(self,a,b,c):
        self.a = float(a)
        self.b = float(b)
        self.c = float(c)
a= int(input("a="))
b= int(input("b="))
c= int(input("c="))
```

```
a=5
b=6
c=7
```

In [26]:

```
class Area(Triangle):
    def __init__(self,a,b,c):
        super().__init__(a,b,c)

    def get_area(self):
        s = (a + b + c) / 2
        return (s*(s-a)*(s-b)*(s-c)) ** 0.5

t = triangle(a,b,c)
print("area : {}".format(t.get_area()))
```

```
area : 14.696938456699069
```

In [6]:

```
# 1.2
def filter_long_words(words, n):
    l = []
    for i in words:
        if len(i) > n:
            l.append(i)
    print(f"Words longer than n are: {l}")
```

In [7]:

```
lst = ["Hello", "World", "welcome", "to", "data science", "course"]
filter_long_words(lst, 5)
```

Words longer than n are: ['welcome', 'data science', 'course']

```
In [8]: # 2.1
def word_len(word):
    return len(word)
```

```
In [11]: l = ['data', 'science', 'course']
x = list(map(word_len, l))
x
```

Out[11]: [4, 7, 6]

```
In [29]: # 2.2
def vowel_check(char):
    if char == "a" or char == "e" or char == "i" or char == "o" or char == "u":
        return True
    else:
        return False
```

```
In [30]: vowel_check(input("Input character: "))
```

Input character: a

Out[30]: True

```
In [ ]:
```