Tutorial 13
ECSE105L

Ques 1. There is a base class named as Tringle as shown in the diagram 1.
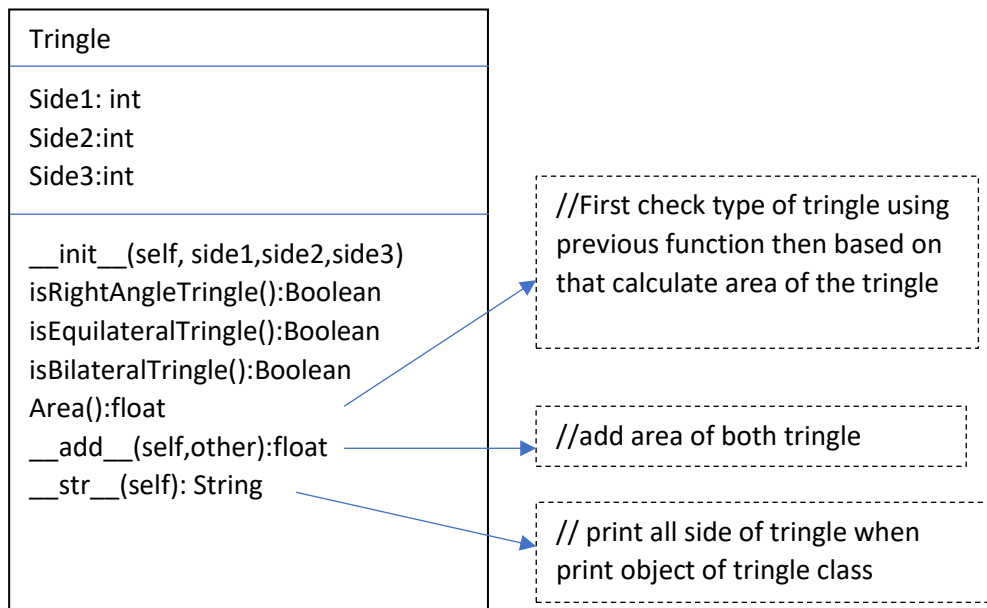
Tringle
Side1: int   Side2:int   Side3:int
__init__(self, side1,side2,side3)   isRightAngleTringle():Boolean   isEquilateralTringle():Boolean   isBilateralTringle():Boolean   Area():float   __add__(self,other):float   __str__(self): String

//First check type of tringle using previous function then based on that calculate area of the tringle

//add area of both tringle

// print all side of tringle when print object of tringle class

Figure 1

Write Python code for the problem describe in figure 1 (Class Diagram)

Properties Given	Area of Triangle Formula
base and height	$A = \frac{1}{2}bh$ where b = base, h = height
three sides	$A = \sqrt{s(s-a)(s-b)(s-c)}$ where a, b, and c are the lengths of the sides and $s = \frac{1}{2}(a+b+c)$ (half the perimeter)

Example of operator overloading:

```python
class Point:
    def __init__(self, x = 0, y = 0):
        self.x = x
        self.y = y

    def __str__(self):
        return "({0},{1})".format(self.x,self.y)

    def __add__(self,other):
        x = self.x + other.x
        y = self.y + other.y
        return Point(x,y)

p1=Point(1,2)
p2=Point(1,2)
print(p1 + p2)
```