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: # task 5
# 1. create a class circle and calculate area and perimeter
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class circle:
    def __init__(self,radius):
        self.radius=radius
    def area(self):
        print("Area of circle = ",pi*(self.radius)**2)
    def perimeter(self):
        print("Perimeter of circle = ",2*pi*self.radius)
```

```
pi=3.14
a=circle(6)
a.area()
a.perimeter()
```

```
Area of circle = 113.04
Perimeter of circle = 37.68
```

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: # 2 create class calculator,make basic arithmetic operations
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class calculator:
    def __init__(self,x,y):
        self.x=x
        self.y=y
    def addition(self):
        print("sum : ",self.x+self.y)
    def subtraction(self):
        print("differnce : ",self.x-self.y)
    def multiplication(self):
        print("product : ",self.x*self.y)
    def division(self):
        print("division : ",self.x/self.y)
```

```
a=calculator(6,3)
a.addition()
a.substraction()
a.multiplication()
a.division()
```

```
sum : 9
differnce : 3
product : 18
division : 2.0
```

12]: *# create a main class shape and their subclasses for this and find area and perim*

```
class shape:
    def Area(self):
        pass
    def Perimeter(self):
        pass
class circle(shape):
    def __init__(self,radius):
        self.radius=radius
    def Area(self):
        print("Area of circle : ",pi*(self.radius)**2)
    def perimeter(self):
        print("Perimeter of circle : ",2*pi*self.radius)
```

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class triangle(shape):
    def __init__(self,a,b,c,height,base):
        self.a=a
        self.b=b
        self.c=c
        self.height=height
        self.base=base
    def Area(self):
        print("Area of triangle : ",0.5*self.base*self.height)
    def Perimeter(self):
        print("Perimeter of triangle : ",self.a+self.b+self.c)
class square(shape):
    def __init__(self,x):
        self.x=x
    def Area(self):
        print("Area of square : ",(self.x)**2)
    def Perimeter(self):
        print("perimeter of square : ",4*self.x)

pi=3.14
g=circle(4)
h=triangle(4,3,2,5,6)
i=square(4)
g.Area()
g.Perimeter()
h.Area()
h.Perimeter()
i.Area()
i.Perimeter()

```

```

Area of circle :  50.24
Area of triangle :  15.0
Perimeter of triangle :  9
Area of square :  16
perimeter of square :  16

```