4. Module(Geometry) - Area.py

In [ ]:

```
def square(s):
    """get A of square with s"""
    A = s**2
    return A


def rectangle(a,b):
    """get A of rectangle with s"""
    A = a*b
    return A

from math import pi

def circle(r):
    """get A of circle with r"""
    A = pi * r**2
    return A


def triangle(b,h):
    """get A of triangle with b, h"""
    A = 0.5*b*h
    return A


def parallelogram(b,h):
    """get A of parallelogram with b,h"""
    A = b*h
    return A

def circular_sector(r,c):
    """get A of circular_sector with r,c"""
    A = pi * (r**2) * (c/360)
    return A


from math import pi

def circle_ring(R,r):
    """get A of circle_ring with R,r"""
    A = pi * (R**2 - r**2)
    return A


def trapezoid(h,a,b):
    """get A of trapezoid with h,a,b"""
    A = h * (a+b) / 2
    return A


def rectangular_box(a,b,c):
    """get A of rectangular_box with a,b,c"""
    A = 2*a*b + 2*b*c + 2*a*c
    return A


def cube(l):
    """get A of cube with l"""
    A=6 * (l**2)
    return A


from math import pi

def cylinder(r,h):
    """get A of cylinder with r,h"""
    A = 2 * pi * r * (r+h)
    return A
```

```
    return r


from math import pi

def right_circular_cone(r,s):
    """get A of right_circular_cone with r,s"""
    A = pi * (r**2) + math.pi * r * s
    return A


from math import pi

def sphere(r):
    """get S of sphere with r"""
    S = 4 * pi * (r**2)
    return S
```

4. Module(Geometry) - busbar.py

In [ ]:

```
from math import sqrt

def right_circular_cone(r,h):
    """get s of right_circular_cone with r,h"""
    s = sqrt((r**2) + (h**2))
    return s
```

4. Module(Geometry) - perimeter.py

In [ ]:

```
def square(s):
    '''get P of square with s'''
    return 4*s


def parallelogram(a, b):
    '''get P of parrallelogram with a, b'''
    return 2*a + 2*b


from math import pi

def circle(r):
    '''get P of circle with r'''
    return 2*pi*r


def triangle(a, b, c):
    '''get P of triangle with a,b,c'''
    return a+b+c


def rectangle(a,b):
    '''get P of rentangle with a,b'''
    return 2*(a+b)


def trapezoid(a, b, c, d):
    '''get P of trapezoid with a,b,c,d'''
    return a+b+c+d;


def circular_sector(r, seta):
    '''get P(length) of circular sector with r, seta'''
    return r * seta
```

4. Module(Geometry) - pythagorean.py

In [ ]:

```
from math import sqrt

def pythagorean_theorem(a,b):
    """get c of pythagorean_theorem with a,b"""
    c = sqrt((a**2) + (b**2))
    return c
```

4. Module(Geometry) - volume.py

In [ ]:

```
from math import pi

def sphere(r):
    '''get volume of sphere with r'''
    return 4 * pi * r ** 3 / 3


def rectangular_box(a,b,c):
    '''get volume of rectangular_box with r'''
    return a * b * c


def right_circular_cone(r, h):
    '''get volume of right_circular_cone with r, h'''
    return (1/3) * pi * r ** 2 * h


def cube(l):
    '''get volume of cube with l'''
    return l ** 3


def cylinder(r, h):
    '''get volume of cylinder with r, h'''
    return pi * r ** 2 * h


def frustum_of_a_cone(r, R, h):
    '''get volume of frustum of a cone with r, R, h'''
    return (1/3) * pi * h * (r**2 + r*R + R**2)
```