Object Oriented Programming

Homework Assignment

Problem 1

Fill in the Line class methods to accept coordinates as a pair of tuples and return the slope and distance of the line.

In [1]:

```python
class Line:

    def __init__(self,coor1,coor2):
        pass

    def distance(self):
        pass

    def slope(self):
        pass
```

In [2]:

```python
# EXAMPLE OUTPUT

coordinate1 = (3,2)
coordinate2 = (8,10)

li = Line(coordinate1,coordinate2)
```

In [3]:

```python
li.distance()
```

Out[3]:

9.433981132056603

In [4]:

```python
li.slope()
```

Out[4]:

1.6

Problem 2

Fill in the class

In [5]:

```python
class Cylinder:

    def __init__(self,height=1,radius=1):
        pass

    def volume(self):
        pass

    def surface_area(self):
        pass
```

In [6]:

```python
# EXAMPLE OUTPUT
c = Cylinder(2,3)
```

In [7]:

```python
c.volume()
```

Out[7]:

56.52

In [8]:

```python
c.surface_area()
```

Out[8]:

94.2