Object Oriented Programming

Homework Assignment

Problem 1

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

```python
In [18]:  class Line(object):

              def __init__(self,coor1,coor2):
                  pass

              def distance(self):
                  pass

              def slope(self):
                  pass
```

```python
In [ ]:  # EXAMPLE OUTPUT

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

         li = Line(coordinate1,coordinate2)
```

```python
In [20]:  li.distance()
```
Out[20]: 9.433981132056603

```python
In [21]:  li.slope()
```
Out[21]: 1.6

Problem 2

Fill in the class

In [31]:
```python
class Cylinder(object):

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

    def volume(self):
        pass

    def surface_area(self):
        pass
```

In [32]:
```python
# EXAMPLE OUTPUT
c = Cylinder(2,3)
```

In [34]:
```python
c.volume()
```

Out[34]: 56.52

In [35]:
```python
c.surface_area()
```

Out[35]: 94.2