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.

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

             def __init__(self,coor1,coor2):
                 pass

             def distance(self):
                 pass

             def slope(self):
                 pass
```

```
In [ ]: # EXAMPLE OUTPUT

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

        li = Line(coordinate1,coordinate2)
```

```
In [20]: li.distance()
```

Out[20]: 9.433981132056603

```
In [21]: li.slope()
```

Out[21]: 1.6

####Problem 2

Fill in the class

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

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

             def volume(self):
                 pass

             def surface_area(self):
                 pass
```

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

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

Out[34]: 56.52

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

Out[35]: 94.2

In [ ]: