# Object Oriented Programming

## Practice Assessment

### 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]:
```
class Line:

    def __init__(self,coor1,coor2):
        pass

    def distance(self):
        pass

    def slope(self):
        pass
```

In [2]:
```
# EXAMPLE OUTPUT

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

li = Line(coordinate1,coordinate2)
```

In [3]:
```
li.distance()
```

Out[3]:
```
9.433981132056603
```

In [4]:
```
li.slope()
```

Out[4]:
```
1.6
```

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### Problem 2

Fill in the class

In [5]:
```
class Cylinder:

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

    def volume(self):
        pass

    def surface_area(self):
        pass
```

In [6]:
```
# EXAMPLE OUTPUT
c = Cylinder(2,3)
```

In [7]:
```
c.volume()
```

Out[7]:
```
56.52
```

In [8]:
```
c.surface_area()
```

Out[8]:
```
94.2
```