Assignment 3

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1.

In [89]:
```
product = lambda x,y : x*y
result =  product (5,6)
print (result)
```

```
30
```

2.

In [90]:
```
import math
def area_of_circle(radius):
    area = math.pi*radius**2
    return area
radius = 10
area = area_of_circle(radius)
print (area)
```

```
314.1592653589793
```

3.

In [91]:
```
def calculator(num1, num2, operation):
    if operation == 'a':
        result = num1 + num2
    elif operation == 's':
        result = num1 - num2
    elif operation == 'm':
        result = num1 * num2
    elif operation == 'd':
        result = num1 / num2
    else:
        print('invalid operation')
        return
    return result

result = calculator(2,5,'d')
print (result)
```

```
0.4
```

4.

In [92]:
```
class Rectangle:
    def __init__(self, length, width):
        self.length = length
        self.width = width

    def area(self):
        return self.length * self.width

r = Rectangle(5, 10)
result = r.area()
print(result)
```

```
50
```

5.

In [93]:
```
class Shape:
    def __init__(self, name, length):
        self.name = name
        self.length = length

    def area(self):
        return 0

class Square(Shape):
    def __init__(self, name, length):
        super().__init__(name,length)

    def area(self):
        return self.length ** 2

    def describe(self):
        return 'This is a: ' + self.name

s = Square('square',5)
print('The area is:')
print(s.area())
print(s.describe())
```

```
The area is:
25
This is a: square
```

In [ ]:

In [ ]: