Assignmet 3

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Exercise 1

In [111…
```
x = lambda num1,num2:num1*num2
x(5,6)
```

Out[111…
```
30
```

Exercise 2

In [112…
```
import math

def calculate_area_of_a_circle(radius):
    area = math.pi * radius**2
    return area
radius = 10
area = calculate_area_of_a_circle(radius)
area
```

Out[112…
```
314.1592653589793
```

Exercise 3

In [113…
```
def perform_operation(num1, num2, operation):
    if operation == 'add':
        return num1 + num2
    elif operation == 'subtract':
        return num1 - num2
    elif operation == 'multiply':
        return num1 * num2
    elif operation == 'd':
        return num1 / num2

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

```
0.4
```

Exercise 4

In [114…
```
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)
area = r.area()
print(area)
```

```
50
```

Exercise 5

In [115…
```
class Shape:
    def __init__(self, name):
        self.name = name

    def area(self):
        return 0

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