Assignment_3

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1 Assignment_3

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3.0.1 Excise 01

[1]:
```
# Lambda Expression
product = lambda a, b: a * b
print(product(5 , 6))
```

```
30
```

3.0.2 Excise 02

[2]:
```
#Function Definition
import math

def circle_area(radius):
    return math.pi * radius ** 2
print(circle_area(10))
```

```
314.1592653589793
```

3.0.3 Excise 03

[3]:
```
# Perform basic arithmetic operations: addition, subtraction, multiplication,␣
 ↪and division.
def calculator(a, b, operation):
    if operation == 'x':
        return a + b
    elif operation == 's':
        return a - b
    elif operation == 'm':
        return a * b
    elif operation == 'd':
        return a / b if b != 0 else "Error: Division by zero"
    else:
```

```
        return "Invalied operation"
print(calculator(2, 5, 'd'))
```

```
0.4
```

3.0.4 Excise 04

[4]:
```
# Define a class named Rectangle
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)
print(r.area())
```

```
50
```

3.0.5 Excise 05

[5]:
```
# Define the parent class 'shape'
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):
        print("The area is:")
        return self.length ** 2

    def describe(self):
        print("This is a:", self.name)

s = square('square', 5)

print(s.area())
print(s.describe())
```

```
The area is:
25
This is a: square
None
```

[ ]: