Exercise 3

Solve the following exercises in Jupyter Notebook, run all cells and download as pdf document. Return your pdf in Assignment 3 created under module Python Part II.

1. Write a lambda expression to get the product of two numbers.

   Run test for expression(5,6)

   Output: 30

2. Write a function to get the area of a circle from the radius.

   Hint: remember to import the right modul for being able to calculte the area of the circle.

   Run test for function(10)

   Output: 314.1592653589793

3. Build a simple calculator which can: add, subtract, multiply, divide.

   Hint: solve by writing a function that takes as argument two numbers and the operation and returns the desired output.

   Run test for function(2,5,'d')

   Output: 0.4

4. Define a class named Rectangle which can be constructed by a length and width.

   The Rectangle class has a method which can compute the area.

   Run test for `r = Rectangle(5,10)`

   `r.area()`

   Output: 50

5. Define a class named Shape and its subclass Square.

   Shape objects can be consrtucted by name and length has an area function wich return 0

   Square subclass has an init function which take a length and name as argument and has an area method and a describe method what prints the name of the Shape.

   Print the area from Square class.

   Run test for:
   ```
   s = Square('square',5)
   print(s.area())
   print(s.describe())
   ```

   Output: The area is:

   25

   This is a: square