

LU09.L01 - Einfache Funktionen

Aufgabe 1

```
def function1():
    """
    Function without params or return
    :return: None
    """
    print('Function 1 is called')

def function2():
    """
    Function with return
    :return: returns a number
    """
    return 69

def function3(name):
    """
    Welcomes the user with "name"
    :param name (str): Name of user to welcome
    :return: None
    """
    print(f'Welcome {name}')
    #print('Welcome ' + name)

def function4(number_to_sqaure):
    """
    Squares a number
    :param number_to_square (int): number to sqaure
    :return (int): Number
    """
    result = number_to_sqaure * number_to_sqaure
    return result

def four_functions():
    """
    Main function
    :return: None
    """
    function1()
    received_from_2 = function2()
```

```
print(received_from_2)
function3('Peter')
received_from_4 = function4(12)
print(received_from_4)

if __name__ == '__main__':
    four_functions()
```

Aufgabe 2

```
import math

def add(num1, num2):
    """
    Addition of two numbers
    :param num1: number 1 for calculation
    :param num2: number 2 for calculation
    :return: result of calculation
    """
    return num1 + num2

def sub(num1, num2):
    """
    Subtracts two numbers
    :param num1: number 1 for calculation
    :param num2: number 2 for calculation
    :return: result of calculation
    """
    return num1 - num2

def mul(num1, num2):
    """
    multiply of two numbers
    :param num1: number 1 for calculation
    :param num2: number 2 for calculation
    :return: result of calculation
    """
    return num1 * num2

def div(num1, num2):
    """
    division of two numbers
    :param num1: number 1 for calculation
    :param num2: number 2 for calculation
```

```
:return: result of calculation
"""
return num1 / num2

def pow(num1):
    """
    Squares two numbers
    :param num1: number to square
    :return: result of calculation
    """
    return num1 * num1

def sqrt(num1):
    """
    return the root of a number
    :param num1: number to get the root of
    :return: result of calculation
    """
    return math.sqrt(num1)

def main():
    result_add = add(5, 5.5)
    result_div = div(10, 3)
    result_mul = mul(3, 3)
    result_sub = sub(10, 4.4)
    result_pow = pow(23)
    result_sqrt = sqrt(81)

    print(result_add)
    print(result_div)
    print(result_mul)
    print(result_sub)
    print(result_pow)
    print(result_sqrt)

if __name__ == '__main__':
    main()
```

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