#### MiniLab-5

Prof.Dr. Bahadır AKTUĞ 803400815021 Machine Learning with Python

Write a function which computes the Body Mass Index (BMI) is defined as the body weight (in kg) divided by the square of the body height (in meters).

Analyze the following program and try to guess the output without running the code.

```
def compute(a, c=5,b=4,d=3) :
    return a*b+c-d

print(compute(4,3,2,1))
print(compute(4,d=5))
print(compute(4,c=5))
```

Write a function which takes a string as input returns the vowels in it.

Write a function which takes the x and y coordinates of a number of points and then prints the closest pair of points.

Construct a list of square roots for numbers up to 10 by using lambda function and map command.

Find the number of letters in each word below by using the lambda and map functions.

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Filter out the students who were admitted in 2013 by using the lambda and filter functions.

```
numaralar = ['12290383', '11290263', '13290193', '14290211', '15290055', '10290403', '13290356'']
```

Using list comprehension reverse each word below while keeping the word order.

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Find the number of distinct characters in the following sentence (Tip: set comprehension).

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Write a program which shows the number of each letter in a given sentence (tip: dictionary comprehension).

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