Laboratory 7

Objective

Familiarize with elements of functional programming and advanced functions topic.

Problem 1

This problem reloads the thematic in the first laboratory, when we had to compute some temperatures, converting them from Celsius to Fahrenheit and vice versa. Now, use lambda expressions and map() function to convert a series of temperatures from Celsius to Fahrenheit and from Fahrenheit to Celsius

The conversion formula from Celsius to Fahrenheit is:

```
Tf=(9/5)*Tc+32
```

The conversion formula from Fahrenheit to Celsius is:

```
Tc=(5/9)*(Tf-32)
```

The list of Celsius temperatures is:

```
celsius = [6, 11, 9.5, 15, 22, 27, 24, 30.3, 37.5, 44]
```

The list of Fahrenheit temperatures is:

```
fahrenheit = [37, 29, 40, 58.6, 20, 68, 21.5, 0, 77, 34]
```

Problem 2

Use lambda expressions and filter() function to create a list based on the (already known) text below, which contains only the words having the length greater or equal to 4.

Now is the winter of our discontent
Made glorious summer by this sun of York;
And all the clouds that lour'd upon our house
In the deep bosom of the ocean buried.

Problem 3

Using lambda expressions and `reduce`() method, compute the maximum element of the following list:

```
l = [12, 32, 1, 73, 25, 68, 83, 29, 55, 61, 100, 97, 2]
```