Python Test

Rules:
1. There are 5 questions, for each question write two solutions in Python and compare the solutions (pros/cons of each). Example output is provided.
2. There is no time limit, you can take as much time as you want.
3. You are free to refer to any resource on the internet, please quote the resource.
4. You are encouraged to use the standard library of python.
5. There are no trick questions, but make reasonable assumptions.
6. This is an individual test; you cannot discuss this with anyone else.

Q1. Write a method that takes a list of numbers and returns a list of numbers that are greater than 42. (Write two code snippets and compare them).

```
>>> solution1([12, 36, 48, 60, 72])
[48, 60, 72]
```

Q2. A text file consists of one number per line. Write a method that takes the file path of this file and returns the highest number present in the file. (Write two code snippets and compare them).

```
$cat nums.txt
34
57
12
93

>>> solution2('nums.txt')
'93'
```

Q3. Given a string consisting of multiple words that are separated by a single space char. Write a method that takes this string as input and returns the top 2 longest words in the string. (Write two code snippets and compare them).

```
>>> soluton3("hi there hello world namaste universe")
['universe', 'namaste']
```

Q4. Write a method that takes a list of numbers and returns all the numbers that occur more than once (duplicate numbers). (Write two code snippets compare them).

```
>>> solution4([1, 3, 2, 2, 3, 4, 5])
[2, 3]
```

Q5. Given a string consisting of multiple words that are separated by space character, write a method that returns a list consist of list of words starting with the same character. Order of string in the lists is not important. (Write two code snippets and compare).

```
>>> solution5('hi there hello word')
[['hi', 'hello'], ['there'], ['word']]
```