

### Задание 1.

```
def serialize_csv(self):
    try:
        with open("Task1/Task1.csv", "w") as f:
            writer = csv.DictWriter(f, fieldnames=["surname", "name", "patronymic", "day", "month", "year"])
            writer.writeheader()
            writer.writerows(self.data)
    except Exception as e:
        print("Something went wrong", e)

def serialize_pickle(self):
    try:
        with open("Task1/Task1.txt", "wb") as f:
            for el in self.data:
                pickle.dump(el, f)
    except Exception as e:
        print("Something went wrong", e)
```

```
Input exit to close program or any other string to start:
Enter number of years:19
Белоусов, Антон, Дмитриевич, Birthday: 12/08/06
Могилевец, Денис, Эдуардович, Birthday: 05/04/06
Любашенко, Андрей, Сергеевич, Birthday: 10/04/06
Input exit to close program or any other string to start:█
```

### Задание 2.

```
Hello! How are you today? ;-)] I know that 2 + 2 = 4 and 2 / 2 = 1.
I know the following: 2 - 2 = 0 and 2 * 2 = 4. Wow, I think it was owl. :-- )
WOW!
Den4ik, Per4ik

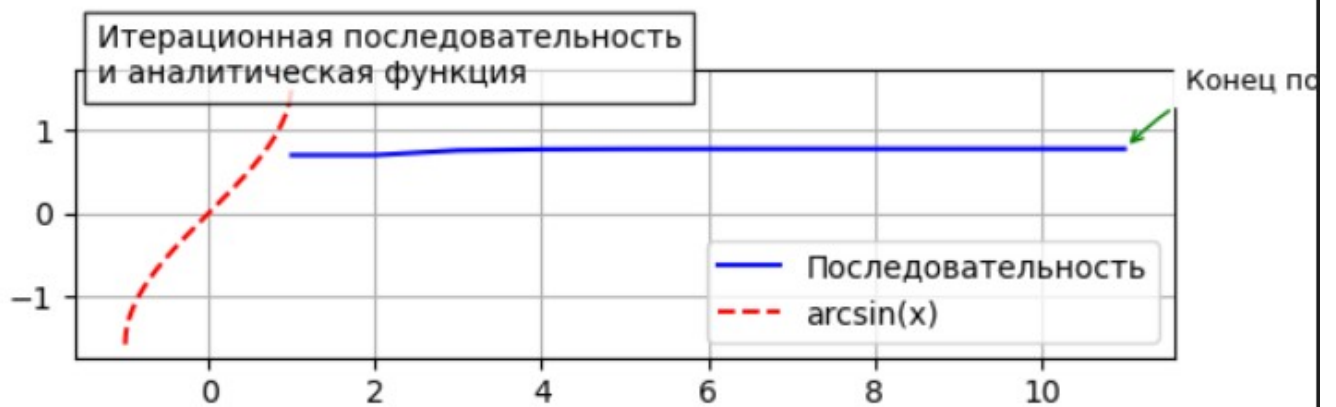
Total number of sentences = 6
Number of narrative sentences = 3
Number of question sentences = 1
Number of incentive sentences = 2
Mean sentence length = 13.833333333333334
Mean word length = 2.7142857142857144
Number of smiles = 2
All words that contain digits and vowel letters: ['Den4ik', 'Per4ik']
[<ZipInfo filename='Task2/Task2_result.txt' filemode='-rw-rw-r--' file_size=14>]
All ariphmetic expressions = ['2 + 2', '2 / 2', '2 - 2', '2 * 2']
Shorted word started with i/I - I

String = Hellow, I am Vlad!
Words with odd number of letters = ['I']
Number of words in string = 4

Repeted words = ['2', 'wow', 'i', 'know', '4', 'and']
```

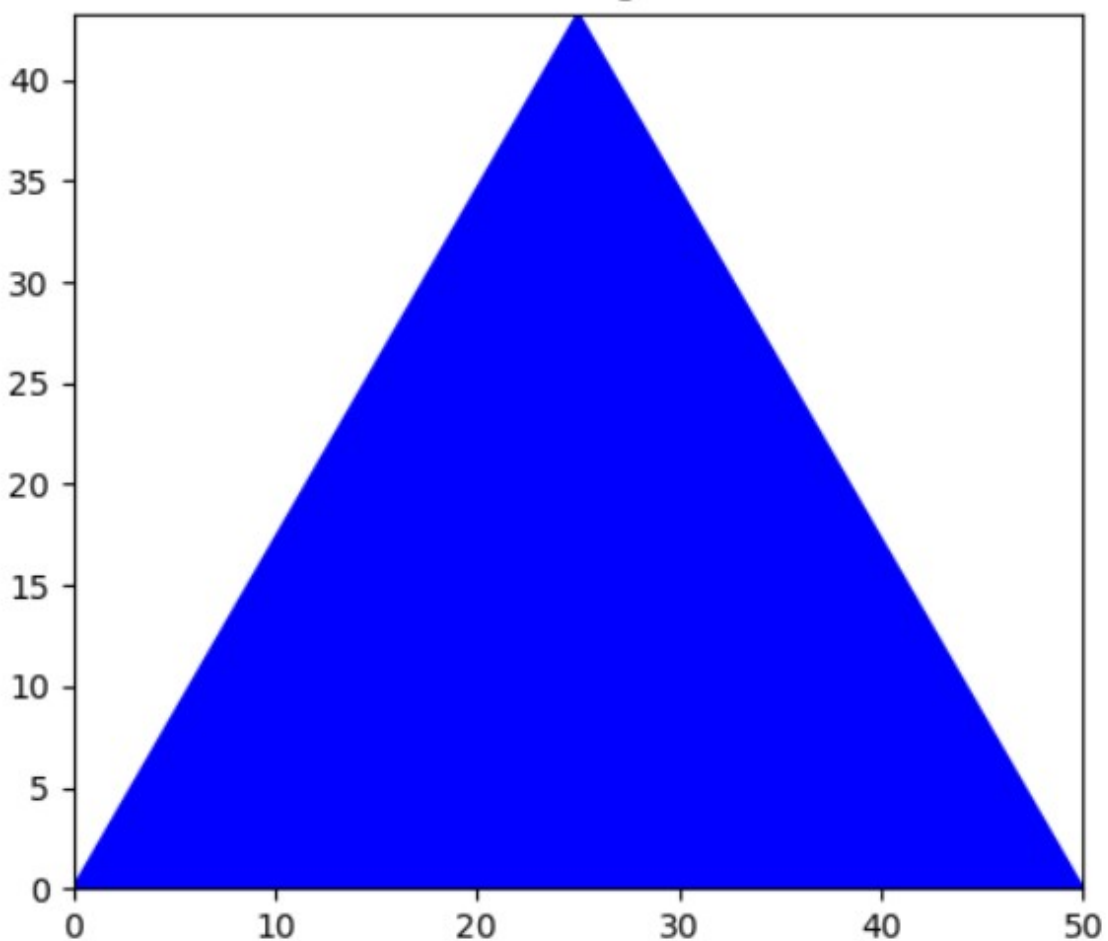
Задание 3.

### Последовательность и функция $\arcsin(x)$



Задание 4.

### Blue Triangle 50



### Задание 5.

Mean of arr1:

2.5

Median of arr1:

2.5

Correlaiton of arr1 & arr2:

```
[[ 1. -1.]  
 [-1.  1.]]
```

Variance of arr1:

1.25

std of arr1:

1.118033988749895

Matrix[4, 6]:

```
[[ 73  63  42  98  68  33]  
 [ 13   1  16  86  27  96]  
 [ 30   1  86  71  18  27]  
 [ 89 100  84  26  50  30]]
```

Min sum of rows = 233

Corcoef of elements with both even indexes and both odd indexes = -0.337433074249438

Input exit to close program or any other string to start: