**1Часть**

import numpy as np

import matplotlib.pyplot as plt

y = lambda x: 5\*(np.sin(10\*x))\*(np.sin(3\*x))

fig = plt.subplots()

x = np.linspace(0, 4,100)

plt.plot(x, y(x))

plt.savefig('1.png', dpi=500)

a=0

b=0

c=0

d=0

**2 часть**

import numpy as np

import matplotlib.pyplot as plt

y = lambda x: 5\*(np.sin(10\*x))\*(np.sin(3\*x))

fig = plt.subplots()

x = np.linspace(0, 4,100)

plt.plot(x, y(x))

plt.savefig('1.png', dpi=500)

a=0

b=0

c=0

d=0

f = open('text.txt', 'r')

for line in f :

for symb in line:

if symb == '!':

a = a + 1

if symb == '.' :

b = b + 1

if symb == '?' :

c = c + 1

import pylab

xdata = ['a', 'b', 'c']

ydata = [a, b, c,]

pylab.bar (xdata, ydata)

pylab.savefig('2.png', dpi=500)

**3 часть**

from collections import Counter

import sys

import pylab

import string

f = open('text.txt', 'r')

a = (Counter(f.read()))

x=a.items()

xdata = []

ydata = []

for k,v in x:

xdata.append(k)

ydata.append(v)

print(xdata)

print(ydata)

pylab.bar(xdata, ydata)

pylab.show()

**Текстовый документ(text.txt)**

Amy normally hated Monday mornings, but this year was different.

Kamal was in her art class and she liked Kamal.

She was waiting outside the classroom when her friend Tara arrived.

Hi Amy! Your mum sent me a text.

You forgot your inhaler.

Why dont you turn your phone on?

Amy didnt like technology. She never sent text messages and she hated Facebook too.

Did Kamal ask you to the disco?

Tara was Amys best friend, and she wanted to know everything that was happening in Amys life!

I dont think he likes me, said Amy. And I never see him alone. Hes always with Grant. Amy and Tara didnt like Grant.