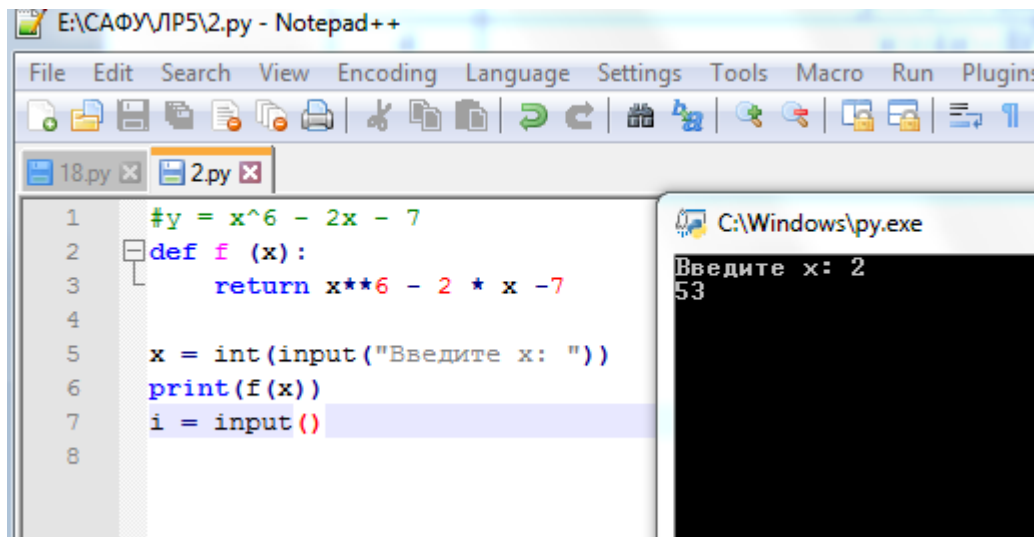


2 задание (1 вариант потому что я Абрамова):



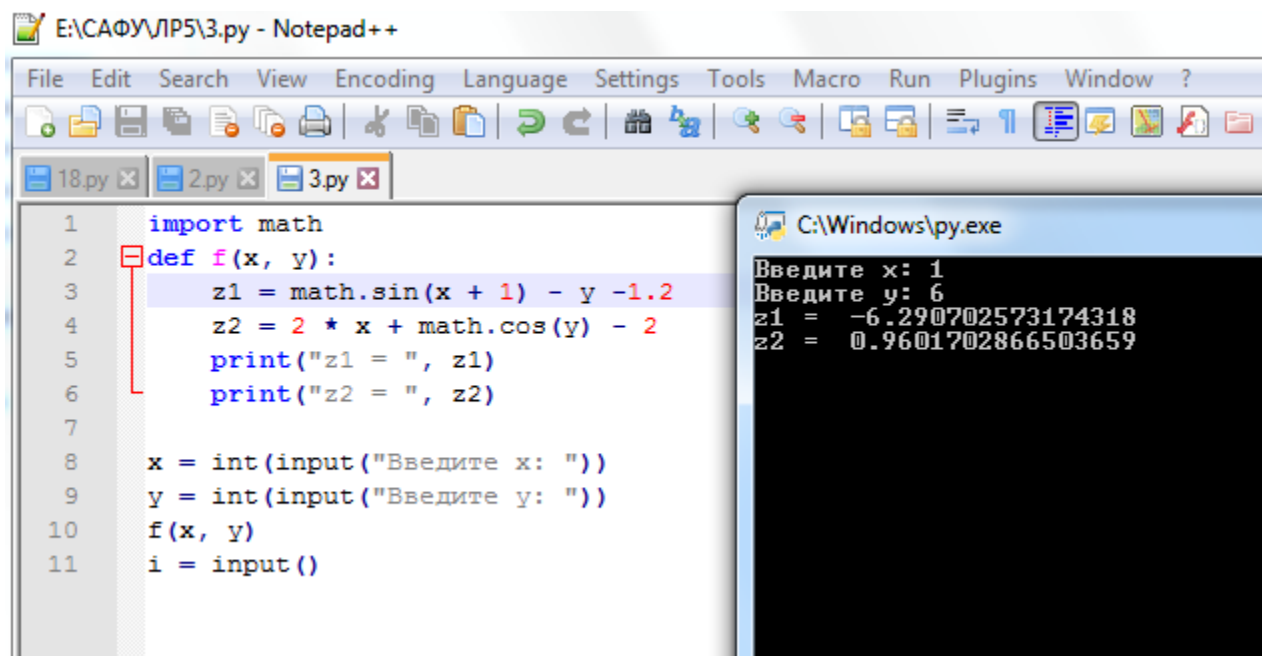
The screenshot shows a Notepad++ window titled "E:\САФУ\IP5\2.py - Notepad++" with a menu bar (File, Edit, Search, View, Encoding, Language, Settings, Tools, Macro, Run, Plugins) and a toolbar. The code in the editor is as follows:

```
1 #y = x^6 - 2x - 7
2 def f(x):
3     return x**6 - 2 * x - 7
4
5 x = int(input("Введите x: "))
6 print(f(x))
7 i = input()
8
```

Below the editor is a command prompt window titled "C:\Windows\py.exe" showing the execution of the program:

```
Введите x: 2
53
```

3 задание (1 вар)



The screenshot shows a Notepad++ window titled "E:\САФУ\IP5\3.py - Notepad++" with a menu bar (File, Edit, Search, View, Encoding, Language, Settings, Tools, Macro, Run, Plugins, Window, ?) and a toolbar. The code in the editor is as follows:

```
1 import math
2 def f(x, y):
3     z1 = math.sin(x + 1) - y - 1.2
4     z2 = 2 * x + math.cos(y) - 2
5     print("z1 = ", z1)
6     print("z2 = ", z2)
7
8 x = int(input("Введите x: "))
9 y = int(input("Введите y: "))
10 f(x, y)
11 i = input()
```

Below the editor is a command prompt window titled "C:\Windows\py.exe" showing the execution of the program:

```
Введите x: 1
Введите y: 6
z1 = -6.290702573174318
z2 = 0.9601702866503659
```

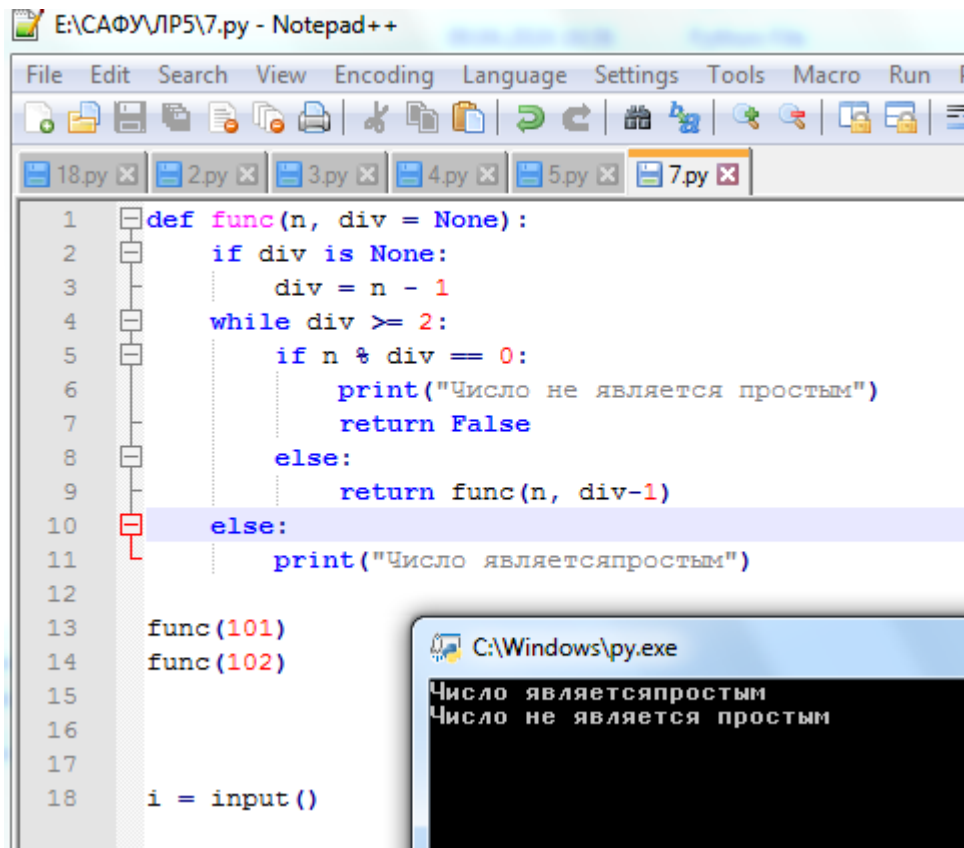
4 задание

main.py	Output
<pre>1 import random as rnd 2 def is_even(a): 3 if a % 2 == 0: 4 return True 5 else: 6 return False 7 8 l1 = [] 9 l2 = [] 0 1 for i in range(10): 2 l1.append(rnd.randint(0,100)) 3 l2.append(rnd.randint(0,100)) 4 print(l1) 5 print("Чётные числа из первого списка: ") 6 for i in l1: 7 if is_even(i): 8 print(i) 9 print(l2) 0 print("Нечётные числа из второго списка: ") 1 for i in l2: 2 if not is_even(i): 3 print(i) 4 i = input()</pre>	<pre>[94, 63, 99, 62, 20, 0, 0, 19, 25, 2] Чётные числа из первого списка: 94 62 20 0 0 2 [95, 21, 32, 24, 96, 75, 12, 97, 77, 64] Нечётные числа из второго списка: 95 21 75 97 77 </pre>

5 задание

main.py	Output
<pre>1 def func(a): 2 min = a[0] 3 for i in a: 4 if i < min: 5 min = i 6 max = a[0] 7 for i in a: 8 if i > max: 9 max = i 10 print(max, min) 11 12 def func1 (*args): 13 min = args[0] 14 for i in args: 15 if i < min: 16 min = i 17 max = args[0] 18 for i in args: 19 if i > max: 20 max = i 21 print(max, min) 22 23 lst = [1, 2, 3, 6, 7, 93, -9] 24 func(lst) 25 func1(4, -56, 78, 0, 292)</pre>	<pre>93 -9 292 -56 === Code Execution Successful === </pre>

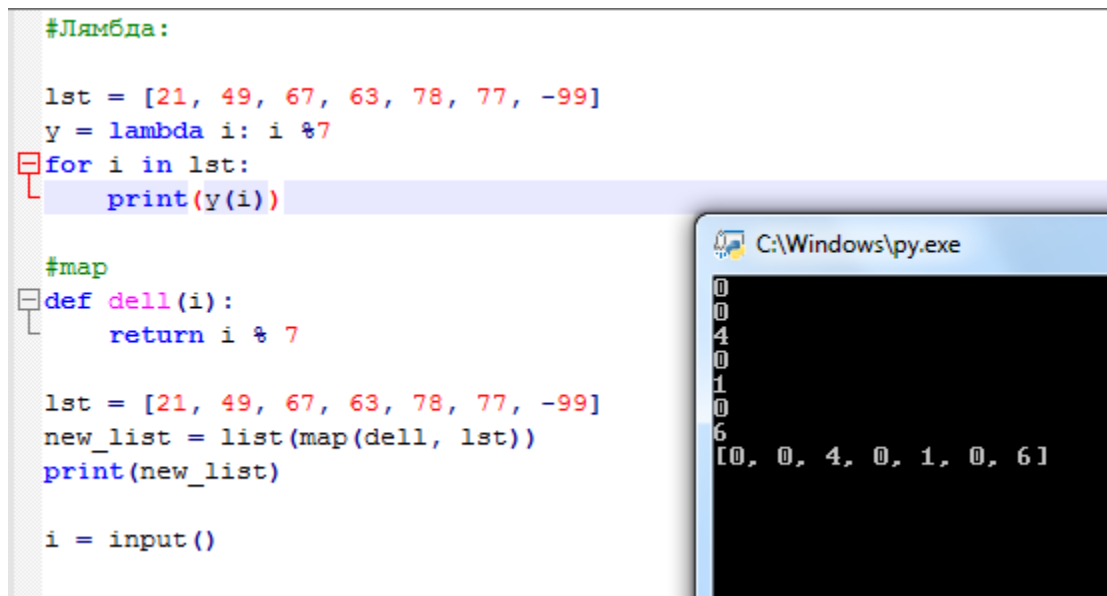
7 задание



```
E:\САФУ\IP5\7.py - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run P
18.py x 2.py x 3.py x 4.py x 5.py x 7.py x
1 def func(n, div = None):
2     if div is None:
3         div = n - 1
4     while div >= 2:
5         if n % div == 0:
6             print("Число не является простым")
7             return False
8         else:
9             return func(n, div-1)
10    else:
11        print("Число является простым")
12
13    func(101)
14    func(102)
15
16
17
18    i = input()
```

C:\Windows\py.exe
Число является простым
Число не является простым

8 задание



```
#Лямбда:
lst = [21, 49, 67, 63, 78, 77, -99]
y = lambda i: i % 7
for i in lst:
    print(y(i))

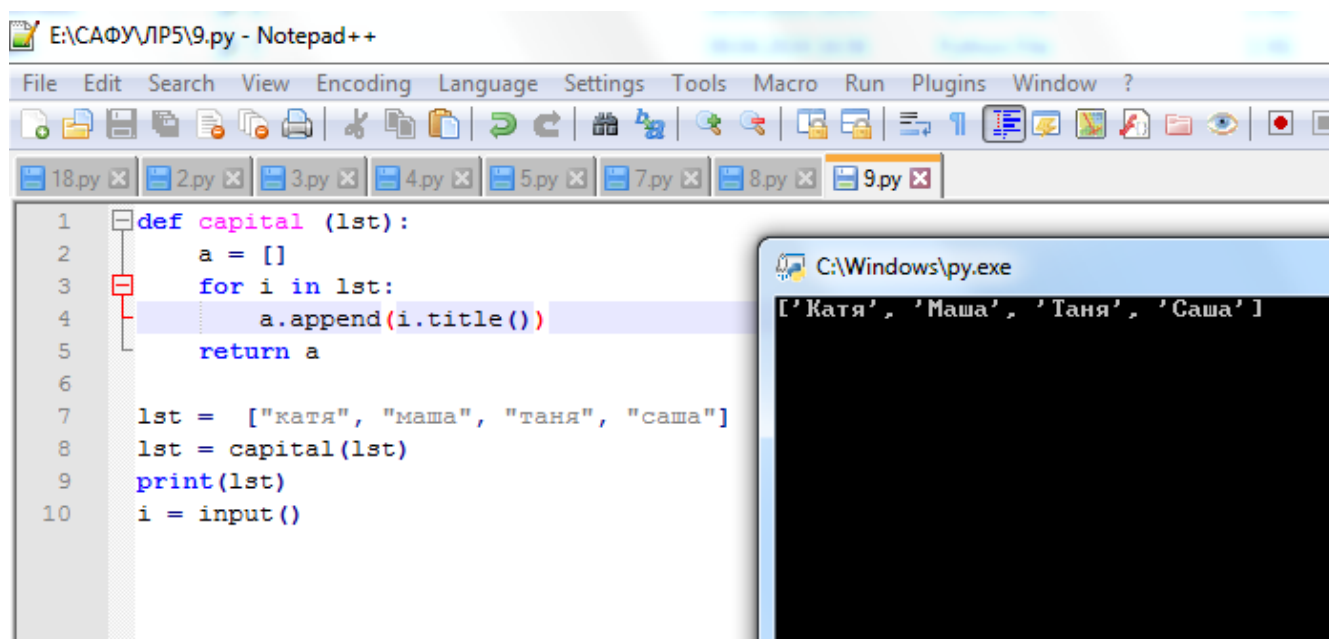
#map
def dell(i):
    return i % 7

lst = [21, 49, 67, 63, 78, 77, -99]
new_list = list(map(dell, lst))
print(new_list)

i = input()
```

C:\Windows\py.exe
0
0
4
0
1
0
6
[0, 0, 4, 0, 1, 0, 6]

9 задание



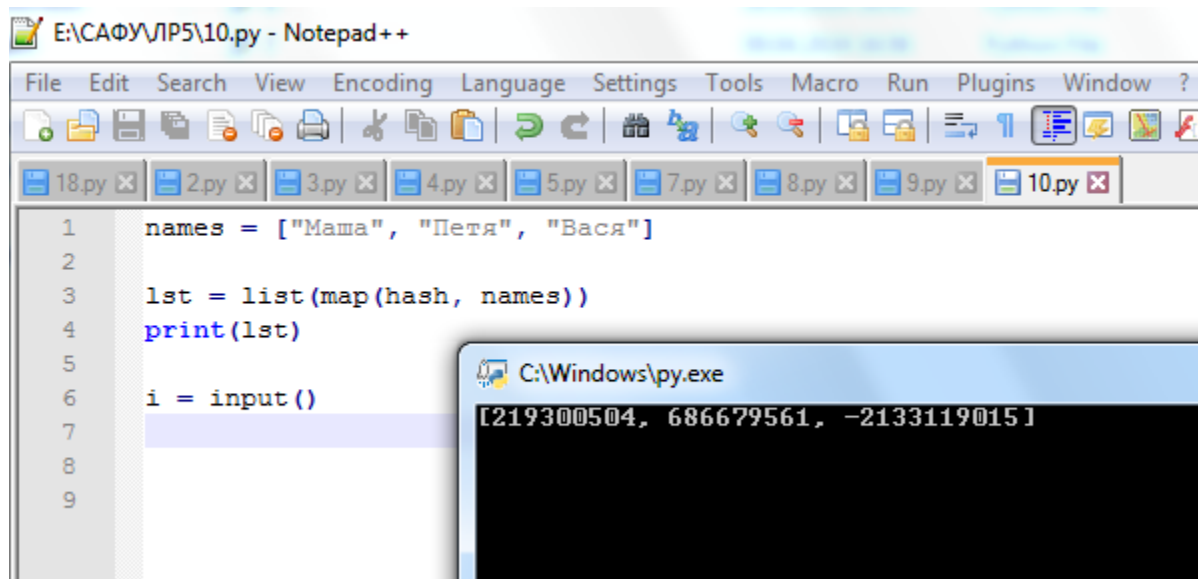
The screenshot shows the Notepad++ editor with a file named `E:\САФУ\ЛР5\9.py`. The code defines a function `capital` that takes a list `lst` and returns a list `a` containing the title case of each element. The script then creates a list `lst` with names in lowercase, calls the `capital` function, and prints the result. A terminal window shows the output of the program.

```
1 def capital (lst):  
2     a = []  
3     for i in lst:  
4         a.append(i.title())  
5     return a  
6  
7 lst = ["катя", "маша", "таня", "саша"]  
8 lst = capital(lst)  
9 print(lst)  
10 i = input()
```

Output in terminal window:

```
C:\Windows\py.exe  
['Катя', 'Маша', 'Таня', 'Саша']
```

10 задание



The screenshot shows the Notepad++ editor with a file named `E:\САФУ\ЛР5\10.py`. The code creates a list `names` with names in Russian, converts each name to its hash value using the `hash` function, and prints the resulting list. A terminal window shows the output of the program.

```
1 names = ["Маша", "Петя", "Вася"]  
2  
3 lst = list(map(hash, names))  
4 print(lst)  
5  
6 i = input()  
7  
8  
9
```

Output in terminal window:

```
C:\Windows\py.exe  
[219300504, 686679561, -2133119015]
```

11 задание

E:\САФУ\IP5\11.py - Notepad++

```
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
1 from functools import reduce
2 sentences = ["научиться плести рыболовные сети",
3 "обучать нейронные сети",
4 "паук ловит в сети мух"]
5 sum = reduce(lambda sentence: sentence.count('сети'), sentences)
6 print(sum)
```

12 задание

main.py	Output
<pre>1 lst = [21, 49, 67, 63, 78, 77, -99] 2 3 a = list(filter(lambda x: x % 7 == 0, lst)) 4 print(a)</pre>	<pre>[21, 49, 63, 77] === Code Execution Successful ===</pre>

13 задание

E:\САФУ\IP5\13.py - Notepad++

```
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
1 names = ["Абрамова Полина Александровна", "Юлия Сергеевна Маломан", "Флейшман Елена Германовна"]
2 math = [21, 99, 89]
3 rus = [81, 99, 89]
4 info = [68, 99, 89]
5
6 res = list(zip(names, math, rus, info))
7 print(res)
8 i = input()
```

C:\Windows\py.exe

```
[(<'Абрамова Полина Александровна', 21, 81, 68>, <'Юлия Сергеевна Маломан', 99, 99, 99>), (<'Флейшман Елена Германовна', 89, 89, 89>)]
```