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**Week 11**

**Task 1**

Write a program that accepts two lists and outputs all the elements of the first one that are not in the second one.

list1 = [1, 2, 3, 4, 5]

list2 = [3, 4, 6, 7]

result = [item for item in list1 if item not in list2]

print("Элементы первого списка, которых нет во втором:", result)

**Task 2**

Print a list of files in the specified directory.

import os

directory = "."

files = os.listdir(directory)

print("Файлы в директории:", files)

**Task 3**

Add up the digits of an integer.

number = 12345

digit\_sum = sum(int(digit) for digit in str(number))

print("Сумма цифр числа:", digit\_sum)

**Task 4**

Count the number of times a character occurs in a string.

string = "hello world"

char = "l"

count = string.count(char)

print(f"Символ '{char}' встречается {count} раз.")

**Task 5**

Swap the values of the variables.

a = 5

b = 10

a, b = b, a

print("a =", a)

print("b =", b)

**Task 6**

Use the anonymous function to extract numbers divisible by 15 from the list.

numbers = [15, 30, 45, 22, 50, 75]

divisible\_by\_15 = list(filter(lambda x: x % 15 == 0, numbers))

print("Числа, делящиеся на 15:", divisible\_by\_15)

**Task 7**

You need to check if all the numbers in the sequence are unique.

numbers = [1, 2, 3, 4, 5, 6]

is\_unique = len(numbers) == len(set(numbers))

print("Все числа уникальны?" if is\_unique else "Есть повторяющиеся числа.")