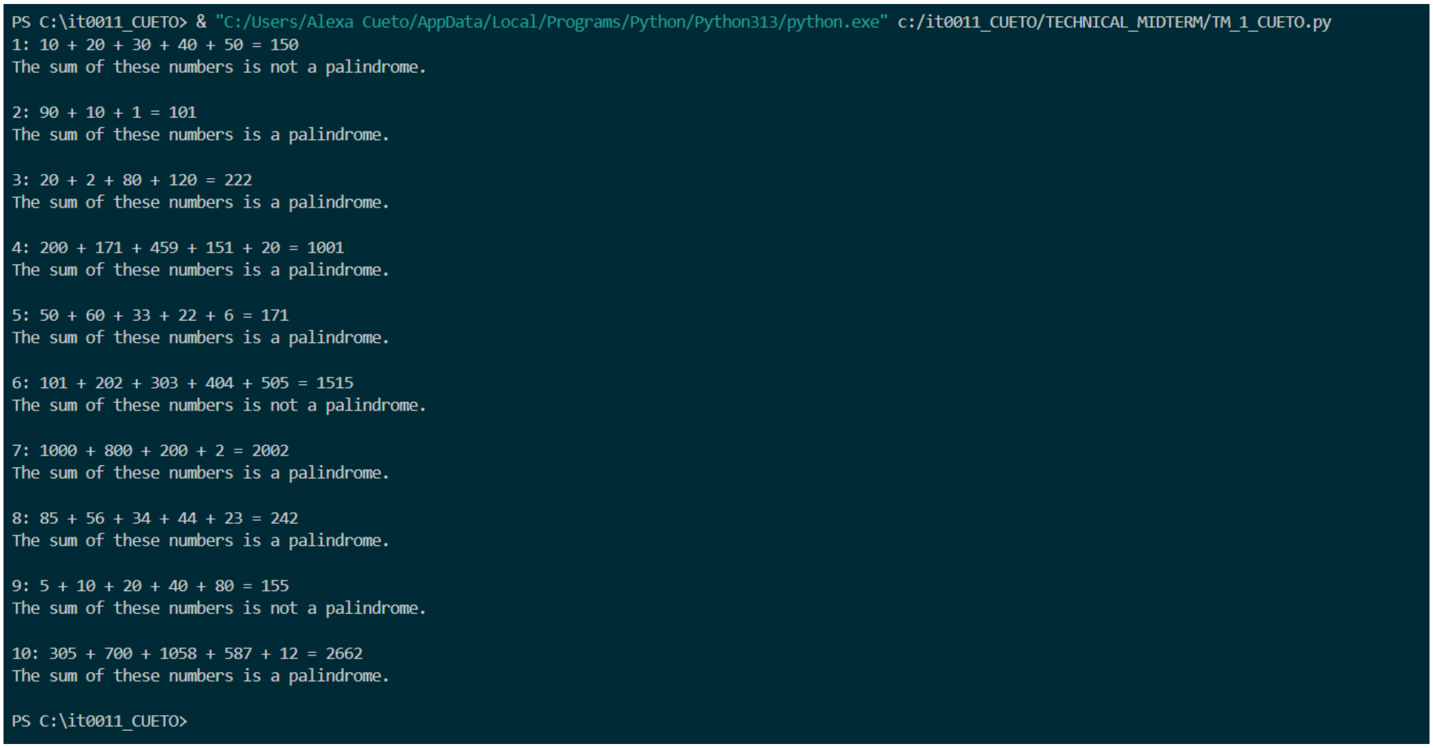
CUETO, ALEXA JOYCE G.
TW23
IT011
TECHNICAL MIDTERM

1. Create a program that will open the file numbers.txt and check each line if the sum of the given string digit numbers is palindrome. If the given numbers are 10,20,30,17 then you have to add the numbers (77) then the number is said to be sum palindrome.

Source Code

```
#CUETO, ALEXA JOYCE G.
#TW23
#CHECK IF THE SUM IS A PALINDROME IN THE FILE NUMBERS.TXT
def palindrome(number):
    number = str(number)
    if number == number[::-1]:
        print("The sum of these numbers is a palindrome.\n")
        return True
    else:
        print("The sum of these numbers is not a palindrome.\n")
        return False

file1 = open("numbers.txt", "r")
numbers = file1.readlines()
file1.close()

for i, line in enumerate(numbers, 1):
    number_list = [int(numbers) for numbers in
line.strip().split(',') if numbers.strip()]
    if number_list:
        total = sum(number_list)
        print(f"{i}: {' + '.join(str(numbers) for numbers in
number_list)} = {total}")
        palindrome(total)
```

Output:



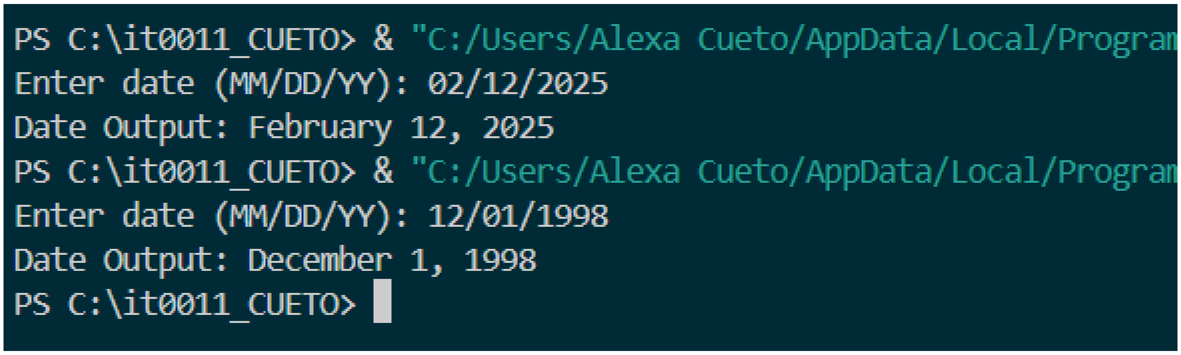
```
PS C:\it0011_CUETO> & "C:/Users/Alexa Cueto/AppData/Local/Programs/Python/Python313/python.exe" c:/it0011_CUETO/TECHNICAL_MIDTERM/TM_1_CUETO.py
1: 10 + 20 + 30 + 40 + 50 = 150
The sum of these numbers is not a palindrome.

2: 90 + 10 + 1 = 101
The sum of these numbers is a palindrome.

3: 20 + 2 + 80 + 120 = 222
The sum of these numbers is a palindrome.

4: 200 + 171 + 459 + 151 + 20 = 1001
The sum of these numbers is a palindrome.

5: 50 + 60 + 33 + 22 + 6 = 171
The sum of these numbers is a palindrome.

6: 101 + 202 + 303 + 404 + 505 = 1515
The sum of these numbers is not a palindrome.

7: 1000 + 800 + 200 + 2 = 2002
The sum of these numbers is a palindrome.

8: 85 + 56 + 34 + 44 + 23 = 242
The sum of these numbers is a palindrome.

9: 5 + 10 + 20 + 40 + 80 = 155
The sum of these numbers is not a palindrome.

10: 305 + 700 + 1058 + 587 + 12 = 2662
The sum of these numbers is a palindrome.

PS C:\it0011_CUETO>
```

2. Create a program that will translate a given date format in mm/dd/yyyy to more human readable format like January 1, 2023

Source Code:

```
#CUETO, ALEXA JOYCE G.
#TW23
#TRANSLATE GIVEN DATE FORMAT TO MORE HUMAN READABLE

inputDate = input("Enter date (MM/DD/YY): ")

def dateFormat(inputDate):
    month, day, year = inputDate.split("/")

    months ={ #dictionary of months
        1: "January", 2: "February", 3: "March", 4: "April",
        5: "May", 6: "June", 7: "July", 8: "August",
        9: "September", 10: "October", 11: "November", 12:
"December"
    }

    if int(month) not in months:
        print("You have entered an invalid month.")
        return

    month = months[int(month)]
    if len(year) == 2:
        year = "20" + year
    else:
        year = year

    print(f"Date Output: {month} {int(day)}, {year}")

dateFormat(inputDate)
```

Output:



```
PS C:\it0011_CUETO> & "C:/Users/Alexa Cueto/AppData/Local/Program
Enter date (MM/DD/YY): 02/12/2025
Date Output: February 12, 2025
PS C:\it0011_CUETO> & "C:/Users/Alexa Cueto/AppData/Local/Program
Enter date (MM/DD/YY): 12/01/1998
Date Output: December 1, 1998
PS C:\it0011_CUETO>
```