CUETO, ALEXA JOYCE G.

TW23

ACTIVITY 5: FUNCTION

Source Code:

```
#CUETO, ALEXA JOYCE G
#TW23
#FUNCTION

def mainMenu(): #Function to display menu
    while True:
        print("\n\t\t--MENU--")
        print("\t\t1. Divide")
        print("\t\t2. Exponentiation")
        print("\t\t3. Remainder")
        print("\t\t4. Summation")
        print("\t\t5. Exit")

        choice =input("\t\tEnter your choice: ")

        if choice == "1":
            division()
        elif choice == "2":
            exponentiation()
        elif choice == "3":
            remainder()
        elif choice == "4":
            summation()
```

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        elif choice =="5":
            print("\t\tThank you for using the program!")
            break
        else:
            print("\t\tInvalid choice. Try again")

def division():
    firstNumber = input("\n\t\tEnter your first numer: ")
    secondNumber = input("\t\tEnter your second number: ")

    if secondNumber == "0": #Error Handling
        print("\t\tThe second number must not be equal to
zero.")
        return None
    else:
        result = int(firstNumber) / int(secondNumber)
        print(f"\n\t\tThe result of {firstNumber} divided by
{secondNumber} is {result}")
        return result


def exponentiation():
    baseNumber = input("\n\t\tEnter your base number: ")
    exponentNumber = input("\t\tEnter your exponent number: ")

    if exponentNumber < "0" and baseNumber == "0" : #Error
Handling
        print("\t\tThe base number must not be equal to zero if
the exponent is less than zero.")
        return None
```

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    else:
        result = int(baseNumber) ** int(exponentNumber)
        print(f"\n\t\tThe result of {baseNumber} raised to the
power of {exponentNumber} is {result}")
        return result


def remainder():
    firstNumber = input("\n\t\tEnter your first number: ")
    secondNumber = input("\t\tEnter your second numer: ")


    if secondNumber == "0": #Error Handling
        print("\t\tThe second number must not be equal to
zero.")
        return None
    else:
        result = int(firstNumber) % int(secondNumber)
        print(f"\n\t\tThe remainder of {firstNumber} divided by
{secondNumber} is {result}")
        return result


def summation():
    firstNumber = input("\n\t\tEnter your first number: ")
    secondNumber = input("\t\tEnter your second number: ")


    if secondNumber <= firstNumber: #Error Handling
        print("\t\tThe second number must be greater than the
first number.")
        return None
    else:
```

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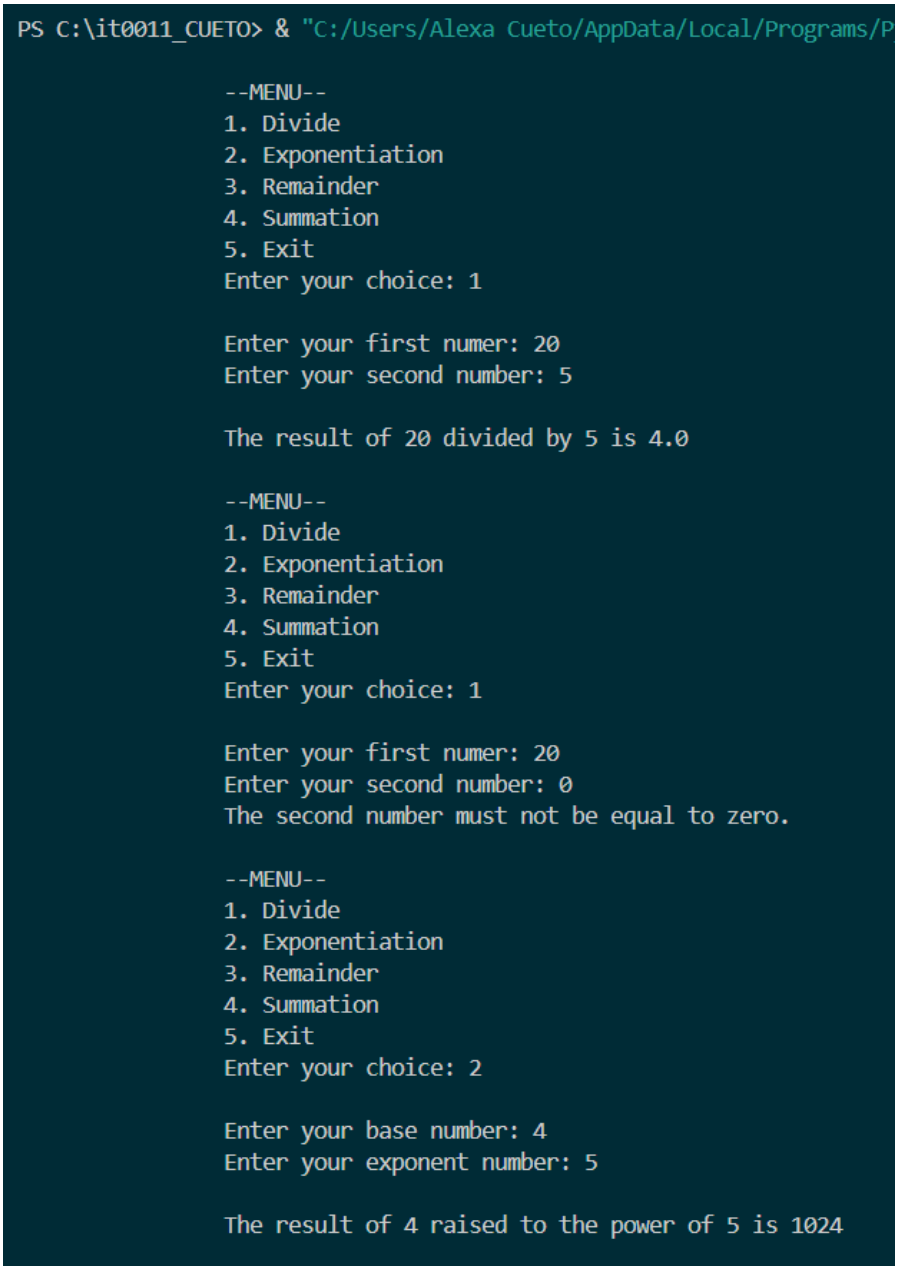
        result = sum(range(int(firstNumber), int(secondNumber) + 1))
        print(f"\n\t\tThe sum of {firstNumber} to {secondNumber} is {result}")
        return result


mainMenu()
```

Screenshots of results:



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--MENU--
1. Divide
2. Exponentiation
3. Remainder
4. Summation
5. Exit
Enter your choice: 2

Enter your base number: 0
Enter your exponent number: -2
The base number must not be equal to zero if the exponent is less than zero.

--MENU--
1. Divide
2. Exponentiation
3. Remainder
4. Summation
5. Exit
Enter your choice: 3

Enter your first number: 10
Enter your second numer: 20

The remainder of 10 divided by 20 is 10

--MENU--
1. Divide
2. Exponentiation
3. Remainder
4. Summation
5. Exit
Enter your choice: 3

Enter your first number: 10
Enter your second numer: 0
The second number must not be equal to zero.
```

```
--MENU--
1. Divide
2. Exponentiation
3. Remainder
4. Summation
5. Exit
Enter your choice: 4

Enter your first number: 4
Enter your second number: 8

The sum of 4 to 8 is 30

--MENU--
1. Divide
2. Exponentiation
3. Remainder
4. Summation
5. Exit
Enter your choice: 5
Thank you for using the program!
PS C:\it0011_CUETO>
```