# 1 Using function with return values

def format\_name (f\_name, l\_name):

    return f"{f\_name.title()} {l\_name.title()}"

name = input ("name: ")

last\_name = input ("Last name: ")

print (format\_name(name, last\_name))

# 2 Days in month

def is\_leap(year):

    output = "yes"

    if year % 4 == 0:

        if year % 100 == 0:

            if year % 400 == 0:

                 output = "yes"

            else:

                output = "no"

        else:

             output = "yes"

    else:

        output = "no"

    return output

year = int(input ("Please write the year: "))

leap = is\_leap(year)

print (leap)

month = int(input("Insert the number of the month: "))

def days\_in\_month(leap, month):

    month\_days = [31, 28, 31, 30, 31, 30, 31, 31, 30, 31, 30, 31]

    if leap == "yes":

        month\_days[1] = 29

    return month\_days[month-1]

days = days\_in\_month(leap, month)

print (days)

#  3 TEST!!! Calculator

def add (a,b):

    return a + b

def substrate (a,b):

    return a - b

def multiplicate (a,b):

    return a \* b

def divide (a,b):

    return a / b

def calculator (a,b,operator):

    if operator == "+":

        return add (a,b)

    elif operator == "-":

        return substrate (a,b)

    elif operator == "\*":

        return multiplicate(a,b)

    elif operator == "/":

        return divide (a,b)

    else:

        return "invalid"

more = "n"

while not more == "end":

    if more == "n":

        first\_number = float (input ("What's the first number? "))

        operator = input ("+\n-\n\*\n/\nPick an operator: ")

        second\_number = float (input ("What's second number? "))

        result = calculator(first\_number, second\_number, operator)

        if result == "invalid":

            print ("You didn't input a valid operator.")

            more = "n"

        else:

            print (f"{first\_number} {operator} {second\_number} = {result}")

            more = input (f"Type 'y' to continue calculating with {result}, or type 'n' to start a new calculation, to finish type 'end': ")

    elif more == "y":

        print (f"The first number is {result}")

        operator = input ("+\n-\n\*\n/\nPick an operator: ")

        second\_number = float (input ("What's next number? "))

        result2 = result

        result = calculator(result, second\_number, operator)

        if result == "invalid":

            print ("You didn't input a valid operator.")

            more = input (f"Type 'y' to continue calculating with {result2}, or type 'n' to start a new calculation, to finish type 'end': ")

            result = result2

        else:

            print (f"{result} {operator} {second\_number} = {result}")

            more = input (f"Type 'y' to continue calculating with {result}, or type 'n' to start a new calculation, to finish type 'end': ")

print ("bye.")

# TEST TEACHER SOLUTION

from replit import clear

from art import logo

def add(n1, n2):

  return n1 + n2

def subtract(n1, n2):

  return n1 - n2

def multiply(n1, n2):

  return n1 \* n2

def divide(n1, n2):

  return n1 / n2

operations = {

  "+": add,

  "-": subtract,

  "\*": multiply,

  "/": divide

}

def calculator():

  print(logo)

  num1 = float(input("What's the first number?: "))

  for symbol in operations:

    print(symbol)

  should\_continue = True

  while should\_continue:

    operation\_symbol = input("Pick an operation: ")

    num2 = float(input("What's the next number?: "))

    calculation\_function = operations[operation\_symbol]

    answer = calculation\_function(num1, num2)

    print(f"{num1} {operation\_symbol} {num2} = {answer}")

    if input(f"Type 'y' to continue calculating with {answer}, or type 'n' to start a new calculation: ") == 'y':

      num1 = answer

    else:

      should\_continue = False

      clear()

      calculator()

calculator()