#1. Write a program in Python to perform the following operation:

# If a number is divisible by 3 it should print “Consultadd” as a string

# If a number is divisible by 5 it should print “Python Training” as a string

# If a number is divisible by both 3 and 5 it should print “Consultadd - Python Training” as astring

data = eval(input("Enter a number"))

if data % 3 == 0 and data % 5 == 0:

print("Consultadd - Python Training")

elif data % 5 == 0:

print("Python Training")

elif data % 3 == 0:

print("Consultadd")

else:

print("choose another number")

#2.Write a program in Python to perform the following operator based task:

#Ask user to choose the following option first:

#If User Enter 1 - Addition

#If User Enter 2 - Subtraction

#If User Enter 3 - Division

#If User Enter 4 - Multiplication

#If User Enter 5 - Average

option = eval(input("enter an option between 1 to 5"))

num1 = eval(input("enter a number"))

num2 = eval(input("enter 2nd number"))

if option <=5 and option >=0:

if option ==1:

add = num1+num2

print(num1,"+",num2,"=",add)

elif option == 2:

minus = num1-num2

print(num1,"-",num2,"=",minus)

elif option == 3:

division = num1/num2

print(num1,"/",num2,"=",division)

elif option == 4:

product = num1\*num2

print(num1,"\*",num2,"=",product)

elif option == 5:

num = eval(input("enter number for average"))

num3 = eval(input("enter number for average"))

avrg = (num1+num2+num+num3)/4

print("average of",num1,num2,num,"and",num3,"is:",avrg)

elif avrg or product or division or minus or add <=0:

print("NEGATIVE")

#3.Write a program in Python to implement the given flowchart:

a,b,c = 10,20,30

avg = (a+b+c)/3

print("avg =",avg)

if avg > a and avg>b and avg>c:

print("avg is higher than a,b,c")

elif avg > a and avg>b:

print("avg is higher than a,b")

elif avg > a and avg>c:

print("avg is higher than a,c")

elif avg>b and avg>c:

print("avg is higher than b,c")

elif avg > a:

print("avg is just higher than a")

elif avg > b:

print("avg is just higher than b")

elif avg > c:

print("avg is just higher than c")

#4.Write a program in Python to break and continue if the following cases occurs:

#If user enters a negative number just break the loop and print “It’s Over”

#If user enters a positive number just continue in the loop and print “Good Going”

while True:

number = eval(input("enter a number"))

if number % 2 == 0:

print ("Good Going")

continue

if number %2 != 0:

print("it's over")

break

print("it's over")

#5.Write a program in Python which will find all such numbers which are divisible by 7

#but are not a multiple of 5, between 2000 and 3200.

nl=[]

for x in range(2000,3200):

if (x%7==0) and (x % 5 != 0):

nl.append(str(x))

print ((nl))

#6. What is the output of the following code examples?

#a)

x=123

for i in x:

print(i)

#ans: 'int' object is not iterable

#b)

i = 0

while i < 5:

print(i)

i += 1

if i == 3:

break

else:

print("error")

#ans:

#0

#error

#1

#error

#2

#c)

count = 0

while True:

print(count)

count += 1

if count >= 5:

break

#ans:

#0

#1

#2

#3

#4

#7. Write a program that prints all the numbers from 0 to 6 except 3 and 6.

#Expected output: 0 1 2 4 5

#Note: Use ‘continue’ statement

for i in range(0,6):

if i == 3 or i == 6:continue

print(i)

#8. Write a program that accepts a string as an input from the user and calculate the number of digits and letters.

#Sample input: consul72

#Expected output: Letters 6 Digits 2

digits = letters = 0

raw = input("enter a string:")

for c in raw:

if c.isdigit():

digits = digits + 1

elif c.isalpha():

letters = letters + 1

print("Letters", letters)

print("Digits", digits)

#9. Read the two parts of the question below:

#a)Write a program such that it asks users to “guess the lucky number”. If the correct number is guessed the program stops,

#otherwise it continues forever.

lucky\_num = 4

while True:

number = eval(input("guess the lucky number"))

if number != lucky\_num:continue

else:

print("Congratulations!! you have guessed it correct :)")

break

#b) Modify the program so that it asks users whether they want to guess again each time.

#Use two variables, ‘number’ for the number and ‘answer’ for the answer to the question whether they want to continue guessing.

#The program stops if the user guesses the correct number or answers “no”.

#(The program continues as long as a user has not answered “no” and has not guessed the correct number)

lucky\_num = 4

while True:

number = eval(input("guess the lucky number"))

if number != lucky\_num:

print("sorry!! you have guessed it wrong.")

answer = eval(input("enter 1 if you want to guess again, otherwise enter 0"))

if answer == 0:break

elif answer == 1: continue

else:

print("Congratulations!! you have guessed it correct :)")

break

#10. Write a program that asks five times to guess the lucky number. Use a while loop and a counter, such as:

#The program asks for five guesses (no matter whether the correct number was guessed or not).

#If the correct number is guessed, the program outputs “Good guess!”, otherwise it outputs “Try again!”.

#After the fifth guess it stops and prints “Game over!”.

counter=1

lucky\_num = 4

while counter <= 6:

print("Type in the", counter, "number")

number = eval(input("guess the lucky number"))

counter=counter+1

if counter == 6:

print("game over!")

break

elif number != lucky\_num:

print("Try again!")

else:

print("Good guess!")

#11. In the previous question, insert break after the “Good guess!” print statement.

#break will terminate the while loop so that users do not have to continue guessing after they found the number.

#If the user does not guess the number at all, print “Sorry but that was not very successful”.

counter=1

lucky\_num = 4

while counter <= 6:

print("Type in the", counter, "number")

number = eval(input("guess the lucky number"))

counter=counter+1

if counter == 6:

print("Sorry but that was not very successful")

break

elif number != lucky\_num:

print("Try again!")

else:

print("Good guess!")

break