# 1. Python program to check if the list contains three consecutive common numbers in Python

def com\_3\_con(list\_1):

    count = 1

    for i in range(0, len(list\_1)):

        if list\_1[i-1] == list\_1[i]:

            count += 1

            if count == 3:

                print("Repeated 3 consecutive times:", list\_1[i])

if \_\_name\_\_ == "\_\_main\_\_":

    com\_3\_con([1,3,4,5,6,7,7,7])

# 2. Python Program for Print Number series without using any loop

# Problem – Givens Two number N and K, our task is to subtract a number K from N

# until number(N) is greater than zero, once the N becomes negative or zero then

# we start adding K until that number become the original number(N).

# Note : Not allow to use any loop.

# Examples :

# Input : N = 15 K = 5

# Output : 15 10 5 0 5 10 15

# Input : N = 20 K = 6

# Output : 20 14 8 2 -4 2 8 14 20

def num\_series(n, N, k, track):

    print(n, end=' ')

    if n <= 0:

        if track == 0:

            track = 1

        else:

            track = 0

    if (n == N and not(track)):

        return

    if track == True:

        num\_series(n-k, N, k, track)

        return

    if not(track):

        num\_series(n+k, N, k, track)

        return

if \_\_name\_\_ == '\_\_main\_\_':

    print()

    print("N=15, K=5 ")

    num\_series(15, 15, 5, True)

    print("\n")

    print("N=20, K=6 ")

    num\_series(20, 20, 6, True)

    print()

# 3. Check if a triangle of positive area is possible with the given angles

# Given three angles. The task is to check if it is possible to have a

# triangle of positive area with these angles. If it is possible print “YES” else print “NO”.

# Examples:

# Input : ang1 = 50, ang2 = 60, ang3 = 70

# Output : YES

# Input : ang1 = 50, ang2 = 65, ang3 = 80

# Output : NO

def create\_tri(ang1, ang2, ang3):

    sum\_of\_angles = ang1 + ang2 + ang3

    if sum\_of\_angles == 180:

        print("YES")

    else:

        print("NO")

if \_\_name\_\_ == '\_\_main\_\_':

    create\_tri(50, 60, 70)

    print()

    create\_tri(50, 65, 80)

# 4. Python Program for Check if all digits of a number divide it

# Given a number n, find whether all digits of n divide it or not.

# Input : 128

# Output : Yes

# 128 % 1 == 0, 128 % 2 == 0, and 128 % 8 == 0.

# Input : 130

# Output : No

def num\_div\_by\_digits(number):

    s\_number = str(number)

    for i in s\_number:

        if number % int(i) == 0:

            print("Yes")

        else:

            print("No")

if \_\_name\_\_ == "\_\_main\_\_":

    # num\_div\_by\_digits(128)

    # num\_div\_by\_digits(130) # getting modulo division error with 0

    num\_div\_by\_digits(136)

# 5. Python program to Extract digits from Tuple list

# Input : test\_list = [(15, 3), (3, 9)]

# Output : [9, 5, 3, 1]

def extract\_digits(test\_list):

    digits = ""

    for i in test\_list:

        for j in i:

            digits += str(j)

    print(digits)

    extract\_digits = list(map(int, set(digits)))

    print(extract\_digits)

if \_\_name\_\_ == '\_\_main\_\_':

    extract\_digits([(15, 3), (3, 9)])

OUTPUTS









