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from math import *
import numpy as np

t = np.zeros(100, dtype='i')
for i in range(1,100):
    t[i]=i*(i-1)//2
    print(i," --> ",t[i])

for cible in range(3,101):
    n = floor ((sqrt (8.0 * cible + 1.0) - 1.0) / 2.0)
    n1 = n * (n + 1.0) / 2.0

    pastrouve = True
    i1 = n1
    while (i1 >= 1) and pastrouve:
        i2 = i1
        while (i2 >= 1) and pastrouve:
            if t[i1] == cible:
                print(cible,"=",t[i1])
                pastrouve = False
            elif t[i2] + t[i1] == cible:
                print(cible,"=",t[i1],"+",t[i2])
                pastrouve = False
            elif t[i2]+t[i1] < cible:
                i3 = i2
                while ((i3 >= 1) and pastrouve):
                    if t[i1] + t[i2] + t[i3] == cible:
                        print(cible,"=",t[i1],"+",t[i2],"+",t[i3])
                        pastrouve = False
                    i3=i3-1
                i2=i2-1
            i1=i1-1

```