**PYTHON PROGRAM 1:**

**Python Program for Maximum height when coins are arranged in a triangle.**

def squareRoot(n):

x = n

y = 1

e = 0.000001

while (x - y > e):

x = (x + y) / 2

y = n/x

return x

def findMaximumHeight(N):

n = 1 + 8\*N

maxH = (-1 + squareRoot(n)) / 2

return int(maxH)

N = 12

print(findMaximumHeight(N))

**OUTPUT:**

