1. Python Program to check whether a given number is a fibonacci number or not

Description:  
Input number : 8  
Output: 8 is a fibonacci number  
Input number : 4  
Output: 4 is not a fibonacci number

import math

def checkPerfectSquare(n):

sqrt = int(math.sqrt(n))

if pow(sqrt, 2) == n:

return True

else:

return False

def isFibonacciNumber(n):

res1 = 5 \* n \* n + 4

res2 = 5 \* n \* n - 4

if checkPerfectSquare(res1) or checkPerfectSquare(res2):

return True

else:

return False

num = int(input("Enter an integer number: "))

if isFibonacciNumber(num):

print ("Yes,", num, "is a Fibonacci number")

else:

print ("No,", num, "is not a Fibonacci number")

**output:**

