INFOSYS HACKWITHINFY QUESTIONS

**1. Given a integer k, integer n and list** **of n numbers. Find all pairs in which sum of first number in pair and value k gives the value of second number in pair.**

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| k **=** int(input())  n **=** int(input())  b **=** list(map(int,input().split()))  **from** itertools **import** combinations as com  pairs **=** list(com(b, 2))  **for** i **in** pairs:  **if** i[0] **+** k **==** i[1]:          print(i) |

**Ex:**

**Input:**

**k=1**

**n=3**

**list=[1,2,3]**

**output:**

**1,2 # 1+1=2**

**2,3 # 2+1=3**

**2. Given a number n find if its divisors count from 1 to n (inclusive) is prime or not.**

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| **import** math  **def** prime(a):  **if** a <**=** 1:  **return** 0  **if** a **==** 2:  **return** 1  **for** i **in** range(2, int(math.sqrt(a)) **+** 1):  **if** a **%** i **==** 0:  **return** 0  **return** 1  n **=** int(input())  c **=** 0  **for** i **in** range(1, n **+** 1):  **if** n **%** i **==** 0:          c **+** **=** 1  **if** prime(c):      print("Count of divisors is prime")  **else**:      print("Count of divisors is not prime") |

**Ex:**

**Input:**

**13**

**Ouput:**

**Count of divisors is prime**