**EXPERIMENT-14**

**OBJECTIVE**- Implement Chinese remainder theorem

**SOURCE CODE-**

**def findMinX(num, rem, k):**

**x = 1; # Initialize result**

**# As per the Chinise remainder**

**# theorem, this loop will**

**# always break.**

**while(True):**

**# Check if remainder of**

**# x % num[j] is rem[j]**

**# or not (for all j from**

**# 0 to k-1)**

**j = 0;**

**while(j < k):**

**if (x % num[j] != rem[j]):**

**break;**

**j += 1;**

**# If all remainders**

**# matched, we found x**

**if (j == k):**

**return x;**

**# Else try next numner**

**x += 1;**

**# Driver Code**

**num = [3, 4, 5];**

**rem = [2, 3, 1];**

**k = len(num);**

**print("x is", findMinX(num, rem, k));**

**OUTPUT**

x is 11

**Developed by:** Abhishek Pandey