Lec-15

17/11/24 2:45 PM

Deepak and Gautam are having a discussion on a new type of number that they call Coding Blocks Number or CB Number. They use following criteria to define a CB Number.

1. 0 and 1 are not a CB number.

2. 2,3,5,7,11,13,17,19,23,29 are CB numbers.

3. Any number not divisible by the numbers in point 2(Given above) are also CB numbers.

Deepak said he loved CB numbers.Hearing it, Gautam throws a challenge to him.

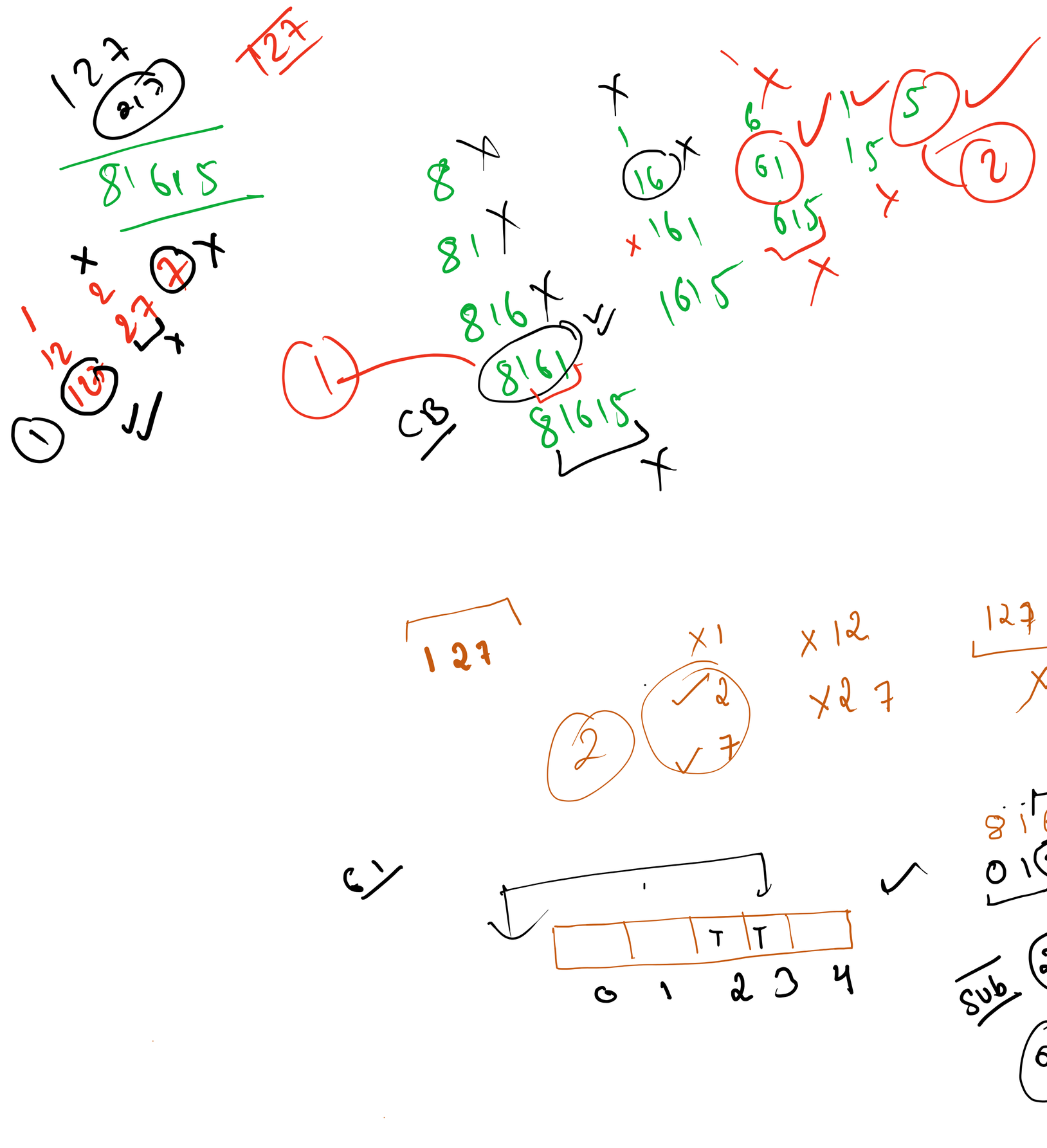
Gautam will give Deepak a string of digits. Deepak's task is to find the number of CB numbers in the string.

CB number once detected should not be sub-string or super-string of any other CB number.

Ex- In **4991**, both **499** and **991** are CB numbers but you can choose either **499** or **991**, not both.

Further, the CB number formed can only be a sub-string of the string.

Ex - In **481**, you can not take **41** as CB number because 41 is not a sub-string of **481**.




```
public static void printallsubstring(String s) {
        int c = 0;
        boolean[] visited = new boolean[s.length()];
        for (int len = 1; len <= s.length(); len++) {
            for (int j = len; j <= s.length(); j++) {
                int i = j - len;
                long x = Long.parseLong(s.substring(i, j));
                if (isCB_Numbers(x) && isvisited(visited, i, j - 1)) {
                    c++;
                    for (int k = i; k < j; k++) {
                        visited[i] = true;
                    }
                }

            }
        }
        System.out.println(c);
    }
    public static boolean isvisited(boolean[] visited, int si, int ei) {
            for (int i = si; i <= ei; i++) {
                if (visited[i] == true) {
                    return false;
                }
            }
            return true;
        }
```