LeetCode 180

找出至少三次连续出现的数字，最简单的方法就是直接使用一套SELECT–FROM–WHERE语句一气呵成：

```sql
SELECT DISTINCT L1.Num
FROM Logs L1, Logs L2, Logs L3
WHERE (L1.Id = L2.Id + 1 AND L1.Num = L2.Num) AND
  (L1.Id = L3.Id + 2 AND L1.Num = L3.Num)
```

也可以使用JOIN子句完成同样的功能：

```sql
SELECT DISTINCT L1.Num
FROM Logs L1
JOIN Logs L2 ON L1.Id + 1 = L2.Id
JOIN Logs L3 ON L1.Id + 2 = L3.Id
WHERE L1.Num = L2.Num AND L1.Num = L3.Num
ORDER BY L1.Num
```

上面两种方法可以用于找到至少三次连续出现的数字，如果将连续出现的数字扩展到N个，按照上面思路写出的SQL语句就会比较长。因此可以用下面这种方式来查询：

```sql
SELECT DISTINCT Num
FROM (
  SELECT Num,
    CASE
      WHEN @prev = Num THEN @count := @count + 1
      WHEN (@prev := Num) IS NOT NULL THEN @count := 1
    END CNT
  FROM Logs, (SELECT @prev := NULL) X
  ORDER BY Id
) AS A
WHERE A.CNT >= 3
```

将最后一行的3改为N，即可用于查询至少N次连续出现的数字。