

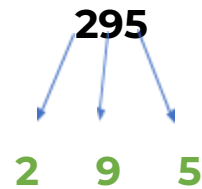
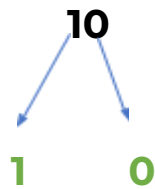


## Lesson 15 Binary Part 1

Every one of us was taught to count one-to-one all the way to ten. Then, we got to know that all numbers are made by combining the **base-ten numerals**.

**Base-ten numerals:** 0,1,2,3,4,5,6,7,8,9

- Any number is made by combining these digits:



- A computer cannot count with base 10 numbers. It only works with data represented as **0's** and **1's**.
- Electricity can only be **On** and **Off**:

**"0"** represents no flow of electricity - - > **false**

**"1"** represents electricity being allowed to flow - - > **true**

- Base 10** refers to the **decimal system**.

Assume you want 12 pens; you cannot count to twelve using your hands because you only have 10 fingers.

As well, a computer cannot count to a hundred using only two states(on and off states). Therefore, it uses the binary's 0 and 1.