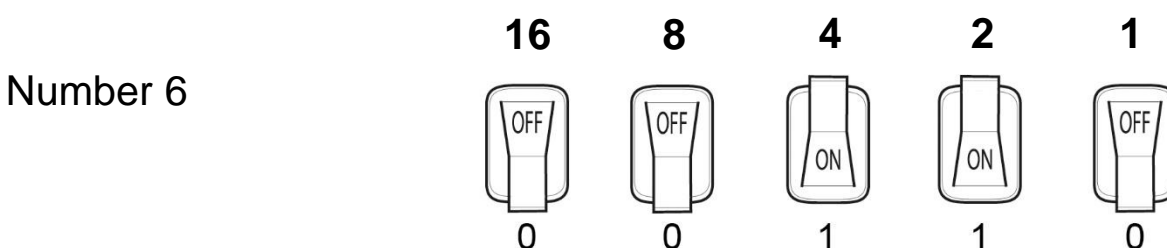


## Master 6

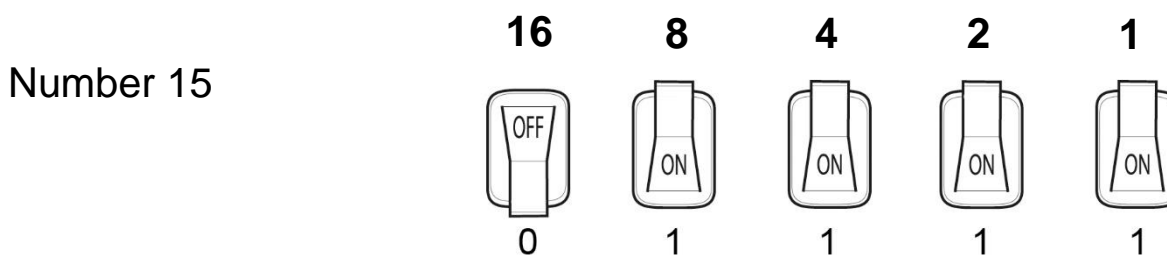
## Connections: Crack the Code!

Computers talk using only two numbers: 0 and 1.  
This is called **Binary Code**.

Think of a bunch of light switches being turned on and off.  
We use 1 to show “On.”  
We use 0 to show “Off.”



The switches for 4 and 2 are “On.”  
So, 00110 represents the number  $4 + 2$ , or 6.



The switches for 8, 4, 2, and 1 are “On.”  
So, 01111 represents the number  $8 + 4 + 2 + 1$ , or 15.

Crack the Code to find these numbers:

a) 1 1 1 1 1

b) 1 0 0 0 1

c) 0 1 1 1 0

Use Binary Code to show 8, 9, and 10.