Post in the discussions how strange was the number systems to you, and which of the topics seen today was more surprising to you.

* You might be aware that there were different number systems, but does it means that you can reason in numbers coded in different bases?
* Which among the topics shown today was more surprising to you?
  + Use personal opinions, but justify your opinion with technical reasons.

Yes, we can undoubtedly reason in numbers coded in different bases. You could say that is what happens when we give instructions to a computer. This is possible because of the conversion factor; being able to convert numbers to different bases without losing their value is how this reasoning is accomplished. Decimal numbers, also known as base ten, are what we use daily for counting and measurements. Binary, aka base two, you can think of as a language of the machines that they understand. Octal, base 8, and hex, base 16, can be represented as compressed binary, essentially grouping binary digits to make them easier for us to read.

What surprised me was the Octal and hexadecimal number systems. At some point, some of us, including myself, used a color code resembling this, #FF5733, to set the color on a website, a color picker on a computer, or a MySpace page. I had no idea this was hexadecimal; the same applies to MAC addresses. I work with MAC addresses (00-1A-2B-3C-4D-5E) on a daily basis and had no clue that they were just compressed binary, which makes them easier to read for humans. This makes sense because computers understand only 0s and 1s, basically an ON/OFF state in circuits. So, instead of using the binary 11111111 01010111 00110011 for the color orange, we use #FF5733, the compressed version that is easier to read and remember.