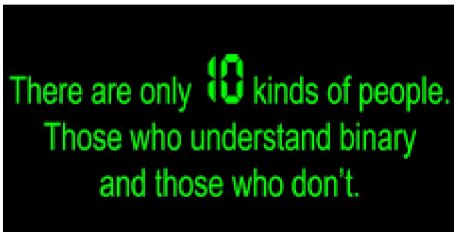


1. **Convert to each format:**

| BINARY | OCTAL | DECIMAL | HEXADECIMAL |
|---|---|---|---|
| 11001101 | 315 | 205 | CD |
| 10100110 | 246 | 166 | A6 |
| 1100010111 | 1427 | 791 | 317 |
| 1111101000000101 | 175005 | 64005 | FA05 |
| 11101001 | 351 | 233 | E9 |
| 1110110001 | 1661 | 945 | 3B1 |

2. **Which number is the greater, $11111000_2$ or $E7_{16}$?. Justify your answer**

   E7=231  11111000= 248

   Per tant, 11111000 es mayor que E7.

3. **RAM memory addresses are usually represented in hexadecimal system.**

   **What decimal code corresponds to the address 0xCF250? -> 848464.**

4. **How is hexadecimal number FA05 encoded in binary?**

   1111101000000101

5. **Execute the "ifconfig" instruction on your machine and determine your IP. Convert your IP address to binary.**

   11011000010111011110001001100010010100100000 1001

- **Do the same with the broadcast address.**

- 100100111000000000001
- **Which one is the MAC address for the wifi card of your computer? (addressHW)**

6. **How many bits are in 32 Bytes?**

   256

7. **How many GigaBytes are in a PetaByte?**

   1000000

8. **If a movie in DivX format occupies 700MB, how many movies can fit on a 4.7GB capacity DVD?**

   6,875428571 DivX Movies

9. **The ASCII code for the symbol**  **is $10011101_{(2}$. How is it represented in octal and hexadecimal systems?**

   Octal = 235  Hexadecimal = 9D

10. **Use the ASCII table to encode your name and surnames in hexadecimal and in binary.**

    Hexadecimal = 47D0EFDFE8C3BDC0E4C3B2C4BC720E0F01552

    Binary= 1000111110100001110111111011111111010001100001110111101110000001110010011000011101100101100010010111100011100100000111000001111000000010101010100010

11. **Open the notepad and write the following message without quotation marks: "In this exercise we are going to check the size of the same information stored in different representation formats"**

- **Save the document as ANSI.txt, choosing the ANSI format.**
- **Save the document as utf8.txt, choosing the UTF-8 format.**
- **Save the document as Unicode.txt, choosing the UNICODE format.**

**How much does each file occupy? Why are they different in size if they have the same text?**