

Santiago Padilla briceño

1. Convert from decimal to binary:
 - a. $234 = 11101010$
 - b. $555 = 1000101011$
 - c. $12321 = 11000000100001$
 - d. $152 = 10011000$
 - e. $32768 = 1000000000000000$
2. Convert from binary to decimal:
 - a. $100000000 = 256$
 - b. $1011110100 = 756$
 - c. $10011101 = 157$
 - d. $1111111111 = 2047$
3. Convert from hexadecimal to binary:
 - a. $45A0 = 100\ 0101\ 1010\ 0000$
 - b. $CF = 1100\ 1111$
 - c. $AAB2 = 1010\ 1010\ 1011\ 0010$
 - d. $3020 = 11\ 0000\ 0010\ 0000$
4. Convert from binary to hexadecimal:
 - a. $0001\ 1000\ 1000 = 188$
 - b. $0001\ 0001\ 0110 = 116$
5. Complete the following conversions related to octal numeral system:
 - a. Convert the numbers from exercise 4 to octal. $110\ 001\ 0002 = 610$,
 $100\ 010\ 1102 = 426$
 - b. Convert the octal 3020 to binary: 11000010000
6. Fill the gaps, using all the conversions you need. You have to write the steps to transform each number.

-the first is like the last and the second like the thirist

BINARY	DECIMAL	HEXADECIMA L	OCTAL
100001	33	21	41
1111 1111	255	FF	377

- a.
7. How many bits do you need to represent the following numbers in binary?
hexadecimal: 4B (7), 4AA (11), FF4FA (20), 345F (14)
decimal: 100 (7), 256 (9), 255 (8), 32 (6), 31 (5), 3 (2), 4350 (13), 1024 (11), 45 (6), 230 (31, remember that is 1 and the number of 0 corresponding with the exponent), 63(6)

