

1.

	A	n	d	r	e	s		F	e	l	i	p	e		C	a	r	d	o	n	a
Character	A	n	d	r	e	s	[space]	F	e	l	i	p	e	[space]	C	a	r	d	o	n	a
Binary	1000001	1101110	1100100	1110010	1100101	1110011	100000	1000110	1100101	1101100	1101001	1110000	1100101	100000	1000011	1100001	1110010	1100100	1101111	1101110	1100001
Hexadecimal	41	6E	64	72	65	73	20	46	65	6C	69	70	65	20	43	61	72	64	6F	6E	61
Decimal	65	110	100	114	101	115	32	70	101	108	105	112	101	32	67	97	114	100	111	110	97

4.

Decimal	Binary	Hexadecimal
0	0	0
1	1	1
2	10	2
3	11	3
4	100	4
5	101	5
6	110	6
7	111	7
8	1000	8
9	1001	9
10	1010	A
11	1011	B
12	1100	C
13	1101	D
14	1110	E
15	1111	F
16	10000	10
17	10001	11
18	10010	12
19	10011	13
20	10100	14
21	10101	15
22	10110	16
23	10111	17
24	11000	18
25	11001	19
26	11010	1A
27	11011	1B
28	11100	1C
29	11101	1D
30	11110	1E
31	11111	1F



2.

$$\begin{array}{r}
 843 \text{ } \begin{array}{l} \text{---} \\ 1 \end{array} \begin{array}{l} \text{---} \\ 421 \end{array} \begin{array}{l} \text{---} \\ 210 \end{array} \begin{array}{l} \text{---} \\ 105 \end{array} \begin{array}{l} \text{---} \\ 52 \end{array} \begin{array}{l} \text{---} \\ 26 \end{array} \begin{array}{l} \text{---} \\ 13 \end{array} \begin{array}{l} \text{---} \\ 6 \end{array} \begin{array}{l} \text{---} \\ 3 \end{array} \begin{array}{l} \text{---} \\ 1 \end{array} \\
 \hline
 1 \quad 1 \quad 0 \quad 1 \quad 0 \quad 0 \quad 1 \quad 0 \quad 1 \quad 1
 \end{array}$$

Binario = 1101001011

3. a. 11100101011110

$$\begin{array}{cccccccccccc}
 13 & 12 & 11 & 10 & 9 & 8 & 7 & 6 & 5 & 4 & 3 & 2 & 1 & 0 \\
 2^{13} & 2^{12} & 2^{11} & 2^{10} & 2^9 & 2^8 & 2^7 & 2^6 & 2^5 & 2^4 & 2^3 & 2^2 & 2^1 & 2^0
 \end{array}$$

$$2 + 4 + 8 + 16 + 64 + 256 + 2048 + 4096 + 8192 = 14686$$

0011 1001 0101 1110

$$\begin{array}{cccc}
 2^3 & 2^2 & 2^1 & 2^0 & 2^7 & 2^6 & 2^5 & 2^4 & 2^3 & 2^2 & 2^1 & 2^0
 \end{array}$$

$$= 395E_{16}$$

3 9 5 E

b. 11111111111111

$$\begin{array}{cccccccccccc}
 2^{12} & 2^{11} & 2^{10} & 2^9 & 2^8 & 2^7 & 2^6 & 2^5 & 2^4 & 2^3 & 2^2 & 2^1 & 2^0
 \end{array}$$

$$1 + 2 + 4 + 8 + 16 + 32 + 64 + 128 + 256 + 512 + 1024 + 2048 + 4096$$

$$= 8191$$

0001 1111 1111 1111

1 F F F

$$= 1FFF_{16}$$



c.

$$\begin{array}{cccccccccccc} 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ 2^{11} & 2^{10} & 2^9 & 2^8 & 2^7 & 2^6 & 2^5 & 2^4 & 2^3 & 2^2 & 2^1 & 2^0 \end{array}$$

$$1 + 2048$$

$$= 2049$$

$$\begin{array}{ccc} 1000 & 0000 & 0001 \\ 8 & 0 & 1 \end{array}$$

$$= 801_{16}$$

d.

$$\begin{array}{cccccccccccc} 1 & 0 & 1 & 0 & 1 & 0 & 1 & 1 & 1 & 0 & 0 & 0 & 0 \\ 2^{13} & 2^{12} & 2^{11} & 2^{10} & 2^9 & 2^8 & 2^7 & 2^6 & 2^5 & 2^4 & 2^3 & 2^2 & 2^1 & 2^0 \end{array}$$

$$16 + 32 + 64 + 128 + 512 + 2048 + 8192$$

$$= 10992$$

$$\begin{array}{cccc} 0010 & 1010 & 1111 & 0000 \\ 2 & A & F & 0 \end{array}$$

$$= 2AFO$$

5. El número hexadecimal que sigue después del 19F es el 1A0.