1. $(11110000)_2 \rightarrow$ HEX

$\underbrace{1111}_{F}\ \underbrace{0000}_{0} = (F0)_{16}$

0	0	0	0	0
	0	0	1	1
	0	1	0	2
	0	1	1	3
		0	0	4
		0	1	5
		1	0	6
0		1	1	7
1	0	0	0	8
1	0	0	1	9
1	0	1	0	A
1	0	1	1	B
1	1	0	0	C
1	1	0	1	D
1	1	1	0	E
1	1	1	1	F

2. $(511)_{10} \rightarrow$ BIN

2	511	1
2	255	1
2	127	1
2	63	1
2	31	1
2	15	1
2	7	1
2	3	1
2	1	1
	0	

$\Rightarrow (511)_{10} = (111111111)_2$

3. Maxitérminos

A	B	C	f(A,B,C)
0	1	0	1
1	0	1	0
1	1	0	1
0	0	0	0
1	1	1	0
0	1	1	1

$A\bar{B}C + \bar{A}\bar{B}\bar{C} + ABC$

$\Rightarrow (\bar{A}+B+\bar{C})(A+B+C)(\bar{A}+\bar{B}+\bar{C})$

4. Resta

$$\begin{array}{r} 00111000 - \ (56) \\ 11000101 \quad (197) \\ \hline 10111001 \\ \hookrightarrow 10001100 + \\ \qquad\qquad\ 1 \\ \hline = 10001101 = (141) \end{array}$$

5. $(167)_{10}$

2	167	1
2	83	1
2	41	1
2	20	0
2	10	0
2	5	1
2	2	0
2	1	1
	0	

$(167)_{10} = (10100111)_2$

6. Suma

$$\begin{array}{r} 01101111 + (55) \\ 10010011 \quad (73) \\ \hline 100000000 \quad (128) \end{array}$$

7. $(FF)_{16} \rightarrow$ DEC

FF = 11111111

8. Minitérminos.

A	B	C	f(A,B,C)
0	1	0	1
1	0	1	0
1	1	0	1
0	0	0	0
1	1	1	0
0	1	1	1

$f(A,B,C) = \bar{A}B\bar{C} + AB\bar{C} + \bar{A}BC$

9. $(C99)_{16} \rightarrow$ BIN

$(100110001)_2$

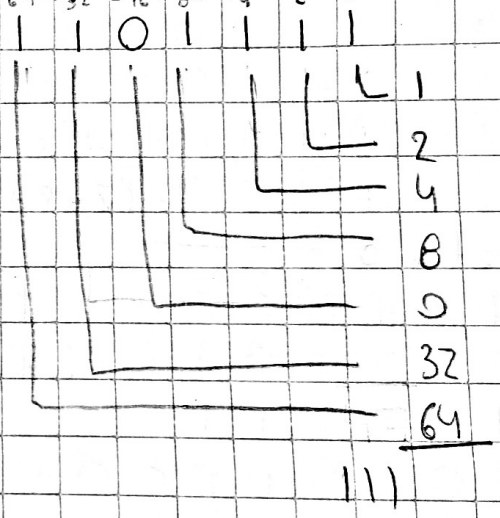
10. $(101100)_2 \rightarrow$ HEX

$(00101100)_2 = 2C$

12. Resta

$$\begin{array}{r} 11000101 \quad (197) \\ -\ 00111000 \quad (56) \\ \hline 10001101 \quad (141) \end{array}$$

14. $(110111)_2 \rightarrow$ DEC



$1+2+4+16+32 = 55$

15. Simplifica

$f = AB'C + BC' + ABC + A'C + A'B'C$

$= C(AB' + AB + A' + A'B') + BC'$

$= C(A(B'+B) + A'(1+B')) + BC'$

$= C(A + A') + BC'$

$= C + BC'$

$= B + C + BC'$

$= B(1+C') + C$

$= B + C$

16. Simplifica

$f = (x+y'+z')(x+y+z)(x'+z')(yz+x'z')$

$= (x + xy + xz + xy' + y'z + xz' + yz')(x'yz + x'z' + x'z')$

$= (x(1+y+z+y'+z') + y'z + yz')(x'(yz + z'))$

$= (x + y'z + yz')(x'(y + yz + z'))$

$= (x + y'z + yz')(x'(y(1+z) + z'))$

$= (x + y'z + yz')(x' + z')$

$= (xz' + x'y'z + x'yz' + yz')$

$= (z'(x + x'y + y) + x'y'z) = (z'(x + y(x'+1)) + x'y'$

$= z'(x+y) + zx'y' =$

16. Simplifica.

$$
\begin{aligned}
f &= (x+y'+z')(x+y+z)(x'+z')(yz+x'z') \\
&= (x + xy + xz + xy' + y'z + xz' + yz')(x'yz + x'z' + x'z') \\
&= (x(1+y+z+y'+z') + y'z + yz')(x'(yz+z')) \\
&= (x + y'z + yz')\,x'(y + yz + z') \\
&= (x + y'z + yz')\,x'(y(1+z) + z') \\
&= (x + y'z + yz')\,x'(y + z') \\
&= x'yz' + x'yz' = x'yz'
\end{aligned}
$$

17. Suma

$$
\begin{array}{rr}
 & 1\ 1\ 0\ 1\ 0\ 1\ 1 \quad (107) \\
+ & 1\ 1\ 0\ 0\ 0\ 1\ 0 \quad (98) \\
\hline
1 & 1\ 0\ 0\ 1\ 1\ 0\ 1 \quad (205)
\end{array}
$$

18. $(10101010)_2 \rightarrow$ DEC