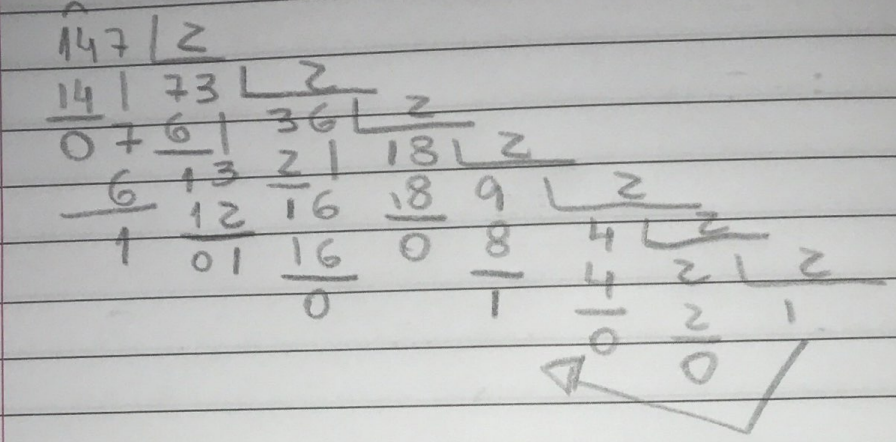
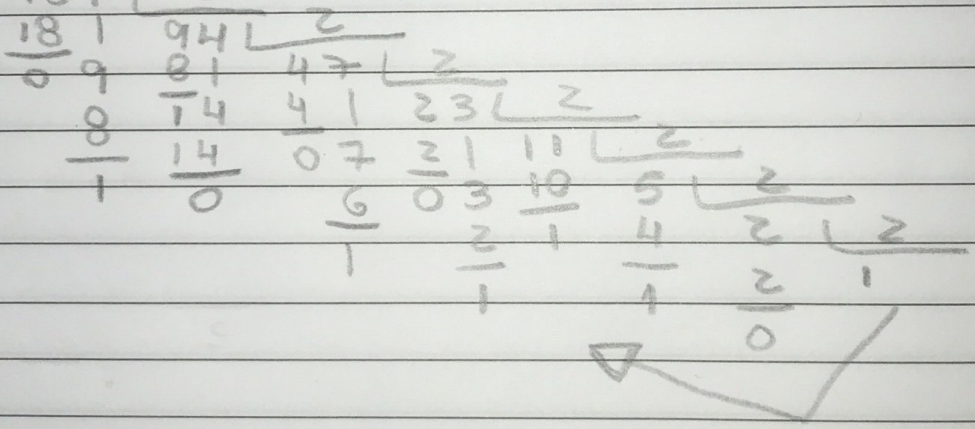
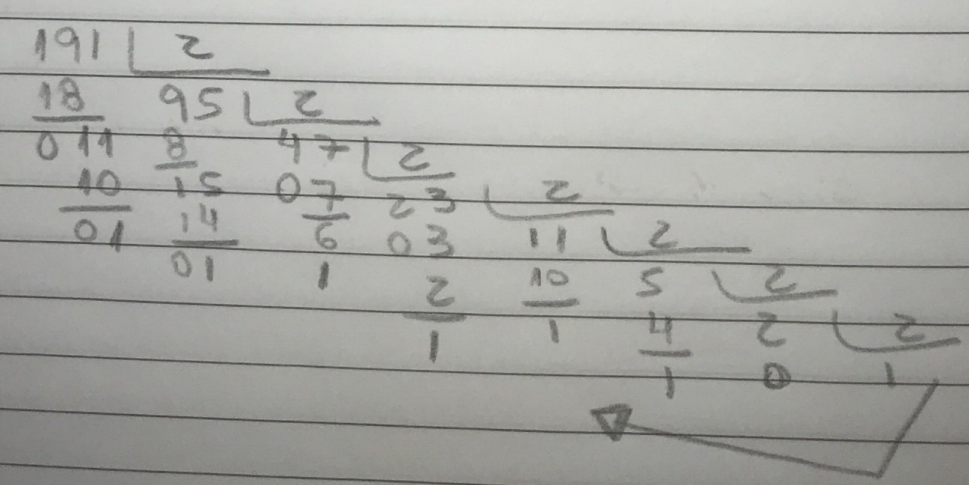
① 147 = 10010011 (E)



② 189 = 1011 1101 (D)



③ 191 = 1011 1111 (C)



④ 247 = 1111 0111 (B)

247 | 2
007 123 | 2
6 03 61 | 2
1 2 01 30 | 2
2 | 15 | 2
10 14 7 | 2
0 1 6 3 | 2
1 2 1
1
1

⑤ 219 = 1101 1011 (C)

219 | 2
21 109 | 2
019 09 54 | 2
18 8 14 27 | 2
1 1 0 07 13 | 2
6 12 6 | 2
1 1 0 3 | 2
2 1
1

⑥ 0011 1101 = (61)

$0\times2^7 + 0\times2^6 + 1\times2^5 + 1\times2^4 + 1\times2^3 + 1\times2^2 + 0\times2^1 + 1\times2^0$

$0 + 0 + 32 + 16 + 8 + 4 + 0 + 1$

⑦ 0110 0101 = (101)

$0\times2^7 + 1\times2^6 + 1\times2^5 + 0\times2^4 + 0\times2^3 + 1\times2^2 + 0\times2^1 + 1\times2^0$

$0 + 64 + 32 + 0 + 0 + 4 + 0 + 1$

(8) 0111 1011 = (123)

$0\times2^7 + 1\times2^6 + 1\times2^5 + 1\times2^4 + 1\times2^3 + 0\times2^2 + 1\times2^1 + 1\times2^0$

$0 + 64 + 32 + 16 + 8 + 0 + 2 + 1$

(9) 1110 1010 = (234)

$1\times2^7 + 1\times2^6 + 1\times2^5 + 0\times2^4 + 1\times2^3 + 0\times2^2 + 1\times2^1 + 0\times2^0$

$128 + 64 + 32 + 0 + 8 + 0 + 2 + 0$

(10) 1101 1110 = (222)

$1\times2^7 + 1\times2^6 + 0\times2^5 + 1\times2^4 + 1\times2^3 + 1\times2^2 + 1\times2^1 + 0\times2^0$

$128 + 64 + 0 + 16 + 8 + 4 + 2$

(11) 247 = (F7)

247 | 16
16 | 15
087
80
07

(13) 193 = (C1)

193 | 16
16 | 12
033
32
01

(12) 291 = (123)

291 | 16
16 | 18 | 16
123,1 | 16 | 1
128 | 02
003

(14) 237 = (ED)

237 | 16
16 | 14
077
64
13

(15) 171 = (AB)

171 | 16
16 | 10
011

(16) 9A = (154)

9A
└ 10 x 16⁰ = 10 → 154
└ 9 x 16¹ = 144

(17) CA = (202)

CA
└ 10 x 16⁰ = 10 = 202
└ 12 x 16¹ = 192

(18) ES = (229)

ES
└ 5 x 16⁰ = 5 = 229
└ 14 x 16¹ = 224

(19) FA = (250)

FA
└ 10 x 16⁰ = 10 = 250
└ 15 x 16¹ = 240

(20) 7F = (127)

7F → 15 x 16⁰ = 15 = 127
└ 7 x 16¹ = 112