TP Nº 2 – Arquitetura de Computadores – Análise e Desenvolvimento de Sistemas.

Victor de Jesus

Ex. 1:

- 101101_2 = **45_{10}**

  $1 * 2^0 = 1$

  $0 * 2^1 = 0$

  $1 * 2^2 = 4$

  $1 * 2^3 = 8$

  $0 * 2^4 = 0$

  $1 * 2^5 = 32$

  Total = 45

- $1111\ 0011_2$ = **243_{10}**

  $1 * 2^0 = 1$

  $1 * 2^1 = 2$

  $0 * 2^2 = 0$

  $0 * 2^3 = 0$

  $1 * 2^4 = 18$

  $1 * 2^5 = 32$

  $1 * 2^6 = 64$

  $1 * 2^7 = 128$

  Total = 243

- 138_{16} = **312_{10}**

  $8 * 16^0 = 8$

  $3 * 16^1 = 48$

  $1 * 16^2 = 256$

  Total = 312

- 450_{16} = **1104_{10}**

  $0 * 16^0 = 0$

  $5 * 16^1 = 80$

  $4 * 16^2 = 1024$

  Total = 11014

- 456_9 = É impossível resolver.
- 345_7 = É impossível resolver.
- 405_5 = É impossível resolver.

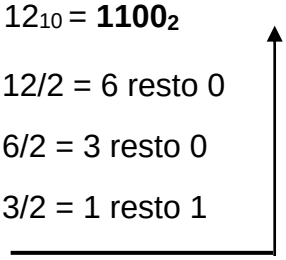
Ex. 2:

- 12_{10} = **1100_2**

  12/2 = 6 resto 0

  6/2 = 3 resto 0

  3/2 = 1 resto 1



- 201_{10} = **$1100\ 1001_2$**

  201/2 = 100 resto 1

  100/2 = 50 resto 0

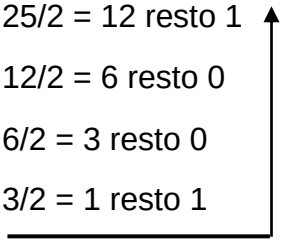
  50/2 = 25 resto 0

  25/2 = 12 resto 1

  12/2 = 6 resto 0

  6/2 = 3 resto 0

  3/2 = 1 resto 1



- 751_{10} = **$1011\ 101111_2$**

  751/2 = 375 resto 1

  375/2 = 187 resto 1

  187/2 = 93 resto 1

  93/2 = 46 resto 1

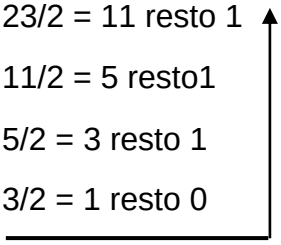
  46/2 = 23 resto 0

  23/2 = 11 resto 1

  11/2 = 5 resto1

  5/2 = 3 resto 1

  3/2 = 1 resto 0



Ex. 3:

- $11\ 0111_2$ = **37_{16}**
- $1\ 1110\ 0001_2$ = **$1E1_{16}$**
- $1101\ 1011\ 0011\ 0001\ 1110_2$ = **$DB31E_{16}$**

Ex. 4:

- $7F_{16}$ = **$0111\ 1111_2$**
- $1B2_{16}$ = **$0001\ 1011\ 0010_2$**
- $FACA_{16}$ = **$1111\ 1010\ 1011\ 1010_2$**