

data 14.08.21
 fecha

D S T Q Q S S
 D L M M J V S

ARQUITETURA DE COMPUTADORES

PROF. FELIX DO ICEGO BARROS

LISTA II

ALUNO JORGE NAMI HARRES

SIST. DE INFORMAÇÃO 2021.2

1-

$$\begin{array}{r|l} 77 & 2 \\ \hline 1 & 38 & 2 \\ \hline 0 & 19 & 2 \\ \hline 1 & 9 & 2 \\ \hline 1 & 4 & 2 \\ \hline 0 & 2 & 2 \\ \hline 0 & 1 \end{array}$$

$$\begin{array}{r|l} 90 & 2 \\ \hline 0 & 45 & 2 \\ \hline 1 & 22 & 2 \\ \hline 0 & 11 & 2 \\ \hline 1 & 5 & 2 \\ \hline 1 & 2 & 2 \\ \hline 0 & 1 \end{array}$$

$$\begin{array}{r} 77 = 01001101 \\ 90 = 01011010 \\ \hline 10100111 \end{array}$$

(negativo)

$$10100111(-1) = 01011001$$

$$2^7 \times 0 + 2^6 \times 1 + 2^5 \times 0 + 2^4 \times 1 + 2^3 \times 1 + 2^2 \times 0 + 2^1 \times 0 + 2^0 \times 1 = 64 + 16 + 8 + 1 = 89$$

$$\text{como e' negativo} = \boxed{-89}$$

data
fecha

D S T Q Q S S
D L M M J V S

2-

00110010

10001001

01010111

10001001

1000

1001

8 4 2 1

8 4 2 1

8+0+0+0

8+0+0+1

8

9

(89)₁₆

3-

1
+ 1E²⁶ · 16 = 10

3C

(5A)

4-

13FA²⁶

15AE¹⁵

0(24B)

5-

a) (101)₂ × (111)₂ =

101

111

101

1010

10100

(100011)₂

data
fecha

D S T Q Q S S
D L M M J V S

$$b) (11101)_2 \times (1010)_2 =$$

$$\begin{array}{r} 11101 \\ \times 1010 \\ \hline 00000 \\ 111010 \\ 0000000 \\ 11101000 \\ \hline (100100010)_2 \end{array}$$

$$c) (1100111)_2 / (1101)_2 =$$

$$\begin{array}{r} 1100111 \mid 1101 \\ 1101 \mid 111,1110 \mid 2 \\ \hline 011001 \\ 1101 \\ \hline 011001 \\ 1101 \\ \hline 11000 \\ 1101 \\ \hline 10110 \\ 1101 \\ \hline 10010 \\ 1101 \\ \hline 01000 \end{array}$$

data
fecha

D S T Q Q S S
D L M M J V S

d) $(111110001)_2 \times (10011)_2 =$

$$\begin{array}{r} 111110001 \\ \times \quad 10011 \\ \hline 111110001 \\ 1111100010 \\ 0000000000 \\ 0000000000 \\ 1111100010000 \\ \hline 100100111000111_2 \end{array}$$

e) $(64B2E)_{16} - (27EBA)_{16} =$

$$\begin{array}{r} 64B2E \\ - 27EBA \\ \hline (3CC74)_{16} \end{array}$$

10 A
11 B
12 C
13 D
14 E
15 F

f) $(EEDF)_{16} - (CAFE)_{16} =$

$$\begin{array}{r} EEDF \\ - CAFE \\ \hline (23E1)_{16} \end{array}$$

$$g) (2351)_8 - (1763)_8 =$$

$$\begin{array}{r} 1 10 4 12 \\ - 2351 \\ 1763 \\ \hline 0(366)_8 \end{array}$$

$$h) (1254)_8 - (77)_8 =$$

$$\begin{array}{r} 1 4 12 \\ - 1254 \\ 77 \\ \hline (1155)_8 \end{array}$$

$$6- \quad + X + Y = 101000$$

$$X = ?$$

$$X - Y = 1010$$

$$Y = ?$$

$$2X = 101000$$

$$1010$$

$$2X = 110010$$

$$\begin{array}{r|l} 110010 & 10 \\ 10 & 11001 \\ \hline 0010 & \\ 0 & \end{array}$$

$$\begin{array}{r|l} 2 & 2 \\ 0 & 1 \\ \hline \end{array}$$

$$X = (11001)_2$$

$$Y = 11001 - 1010$$

$$\begin{array}{r} 0 0 1 2 \\ - 1010 \\ \hline 1111 \end{array}$$

$$Y = (1111)_2$$