Sabiranje binarnih brojeva

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| prenos | 1 |  |  |  | 1 |  |  |
| A |  | 1 | 1 | 0 | 0 | 1 | 1 |
| B |  | 1 | 0 | 1 | 0 | 1 | 0 |
| rezultat | 1 | 0 | 1 | 1 | 1 | 0 | 1 |

Oduzimanje binarnih brojeva

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| prenos |  |  | 0 | 0 |  |  |  |  |
| A | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| B | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| rezultat | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |

Množenje binarnih brojeva

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 0 | 0 | 1 | 0 | \* | 1 | 0 | 1 |
| 1 | 0 | 0 | 1 | 0 |  |  |  |  |
|  | 0 | 0 | 0 | 0 | 0 |  |  |  |
|  |  | 1 | 0 | 0 | 1 | 0 |  |  |
| 1 | 0 | 1 | 1 | 0 | 1 | 0 |  |  |

Deljenje binarnih brojeva

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 1 | 0 | 0 | 1 | 0 | / | 1 | 0 | 1 | = | 1 | 0 |  |  |  |
| - | 1 | 0 | 1 | (1 u rezultat) | | | | | | | | | | | | |
|  | 0 | 0 | 1 | 0 | 1 | (prebacimo 1. cifru, zapišemo 0) | | | | | | | | | | |
|  |  | - | 1 | 0 | 1 | (prebacimo 2. cifru, rezultat 1) | | | | | | | | | | |
|  |  |  | 0 | 0 | 0 | 0 | (prebacimo poslednju cifru, rezultat 0) | | | | | | | | | |

Vežbe

11011(2) + 1101(2) = ?

01101

= 101000(2) (27 + 13 = 40)

10001(2) – 101(2) = ?

00101

= 1100(2) (17 – 5 = 12)

11010(2) \* 110(2) = ?

11010

11010

00000

10011100(2) (26 \* 6 = 156)

100100(2) / 100(2) = ?

100

000100

100

000

= 001001(2) (36 / 4 = 9)

Izračunati u binarnom brojevnom sistemu

10111011 + 10110010 = 101101101 (187 + 178 = 365)(10)

10110001 + 11101000 = 110011001 (177 + 232 = 409)(10)

11100110 – 11001000 = 11110 (230 – 200 = 30)(10)

11111010 – 10011001 = 1100001 (250 – 153 = 97)(10)

10010111 \* 1010 = 10111100110 (151 \* 10 = 1510)(10)

11010100 \* 1101 = 101011000100 (212 \* 13 = 2756)(10)

11110000 / 110 = 101000 (240 / 6 = 40)(10)

11011100 / 1010 = 10110 (220 / 10 = 22)(10)

Izračunati u heksadecimalnom brojevnom sistemu

11 + 9 = 1A

151 + 23 = 174

21 – 15 = C

532 – 44 = 4EE

151 \* 3 = 3F3

24 \* 13 = 2AC

12 / 9 = 2