

Вежби

Пр.1. Кој број е претставен на сликата:

1	1	0	0	1	0	1	1	1	1	1	0	0	1	1	1	0	0	0	0	0	0	..	0
31				30																			0

$S=1$ – бројот е негативен

$$E+127_{10}=10010111_2$$

$$E=10010111_2-01111111_2=11000_2$$

$$E=11000_2=24_{10}$$

$$F=0.10011100_2$$

$$M+F=1.10011100_2$$

$$x=(-1)^s * M * 2^e = -1.10011100 * 2^{11000}$$

Пр.2. Бројот 10010.0101_2 да се претстави со обична точност.

$$10010.0101_2=1.00100101 * 2^{100} \quad (1+F)*2^E$$

$$F=0.11011 \quad E=100$$

$$E+127_{10}=100_2+1111111_2=10000011_2$$

0	1	0	0	0	0	0	1	1	0	0	1	0	0	1	0	1	0	0
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Пр.3. Бројот -0.000110111_2 да се претстави со обична точност

$$-0.000110111_2= -1.101110_2 * 2^{-100}$$

$$E=100 \quad F=0.101110$$

$$E+127_{10}= -100_2+1111111_2=1111011_2$$

1	0	1	1	1	1	0	1	1	1	0	1	1	1	0	0	0	0	0	0
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Пр.4. Кој број е претставен на сликата:

0	1	0	0	0	0	1	0	1	1	0	0	1	0	1	1	0	0	1	1	0	..	0
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$$E+127_{10}=10000101_2$$

$S=0$ бројот е позитивен

$$E=10000101_2-1111111_2=110_2=6_{10}$$

$$F=0.100101100110_2$$

$$M+F=1.100101100110_2$$

$$x=(-1)^s * M * 2^e = 1.100101100110_2 * 2^{110} = 1100101.10011_2$$

Пр.5. Бројот -0.0000001011011_2 да се претстави со обична точност

$$-0.0000001011011_2=1.011011 * 2^{-111}$$

$$E+127_{10}= -111_2+1111111_2=1111000_2$$

$S= -1$ бројот е негативен

$$F=0.011011$$

1	0	1	1	1	1	0	0	0	0	1	1	0	1	1	0	0	0	0
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