

Laboratorio del 21/10/2010 - Numeri binari e conversione

1. Conversione binario \rightarrow decimale

- a. $1101_2 \rightarrow ?_{10}$
- b. $10101101_2 \rightarrow ?_{10}$
- c. $1101001_2 \rightarrow ?_{10}$
- d. $10100101_2 \rightarrow ?_{10}$

2. Conversione decimale \rightarrow binario

- a. $83_{10} \rightarrow ?_2$
- b. $125_{10} \rightarrow ?_2$
- c. $3184_{10} \rightarrow ?_2$
- d. $7569_{10} \rightarrow ?_2$

3. Conversione binario \rightarrow esadecimale

- a. $110101_2 \rightarrow ?_{16}$
- b. $101100_2 \rightarrow ?_{16}$
- c. $111101001010_2 \rightarrow ?_{16}$
- d. $10110000001_2 \rightarrow ?_{16}$

4. Conversione esadecimale \rightarrow binario

- a. $0x5C \rightarrow ?_2$
- b. $0xBD4 \rightarrow ?_2$
- c. $0x159 \rightarrow ?_2$
- d. $0xB062 \rightarrow ?_2$

5. Somme binarie

- a. $100101_2 + 101_2 = ?_2$
- b. $1011101_2 + 11001100_2 = ?_2$
- c. $10011_2 + 110111001_2 = ?_2$
- d. $111100110_2 + 110101001_2 = ?_2$

6. Sottrazioni binarie (in complemento a due)

- a. $1001_2 - 110_2 = ?_2$
- b. $101_2 - 1011_2 = ?_2$
- c. $10001_2 - 1111_2 = ?_2$
- d. $-111_2 - 101010_2 = ?_2$ (Eseguire i calcoli a 8 bit)

7. Conversione in floating point secondo lo standard IEEE 754

- a. $-20,75_{10} = \langle s, e, m \rangle ?$
- b. $+9,3125_{10} = \langle s, e, m \rangle ?$
- c. $-0,125_{10} = \langle s, e, m \rangle ?$
- d. $0,1_{10} = \langle s, e, m \rangle ?$