

## Esercitazione 1 – Codifica binaria

### 1. Conversione binario $\rightarrow$ decimale

- a.  $1101_2 \rightarrow ?_{10}$
- b.  $10010101_2 \rightarrow ?_{10}$
- c.  $1001011_2 \rightarrow ?_{10}$
- d.  $10110111_2 \rightarrow ?_{10}$

### 2. Conversione decimale $\rightarrow$ binario

- a.  $83_{10} \rightarrow ?_2$
- b.  $93_{10} \rightarrow ?_2$
- c.  $2782_{10} \rightarrow ?_2$
- d.  $6711_{10} \rightarrow ?_2$

### 3. Conversione binario $\rightarrow$ esadecimale

- a.  $110101_2 \rightarrow ?_{16}$
- b.  $1011001_2 \rightarrow ?_{16}$
- c.  $110100010010_2 \rightarrow ?_{16}$
- d.  $11011000000010_2 \rightarrow ?_{16}$

### 4. Conversione esadecimale $\rightarrow$ binario

- a.  $0x5C \rightarrow ?_2$
- b.  $0x958 \rightarrow ?_2$
- c.  $0x307 \rightarrow ?_2$
- d.  $0xA142 \rightarrow ?_2$

### 5. Somme binarie

- a.  $100101_2 + 101_2 = ?_2$
- b.  $111010_2 + 1001000_2 = ?_2$
- c.  $100010_2 + 1101111011_2 = ?_2$
- d.  $101110001_2 + 1001001001_2 = ?_2$

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**6. Sottrazioni binarie (in complemento a due)**

- a.  $1001_2 - 110_2 = ?_2$
- b.  $110_2 - 1001_2 = ?_2$
- c.  $10100_2 - 1011_2 = ?_2$
- d.  $1110_2 - 11010_2 = ?_2$  (*Eeguire 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.  $17,375_{10} = \langle s, e, m \rangle?$
- c.  $0,78125_{10} = \langle s, e, m \rangle?$
- d.  $-0,8_{10} = \langle s, e, m \rangle?$