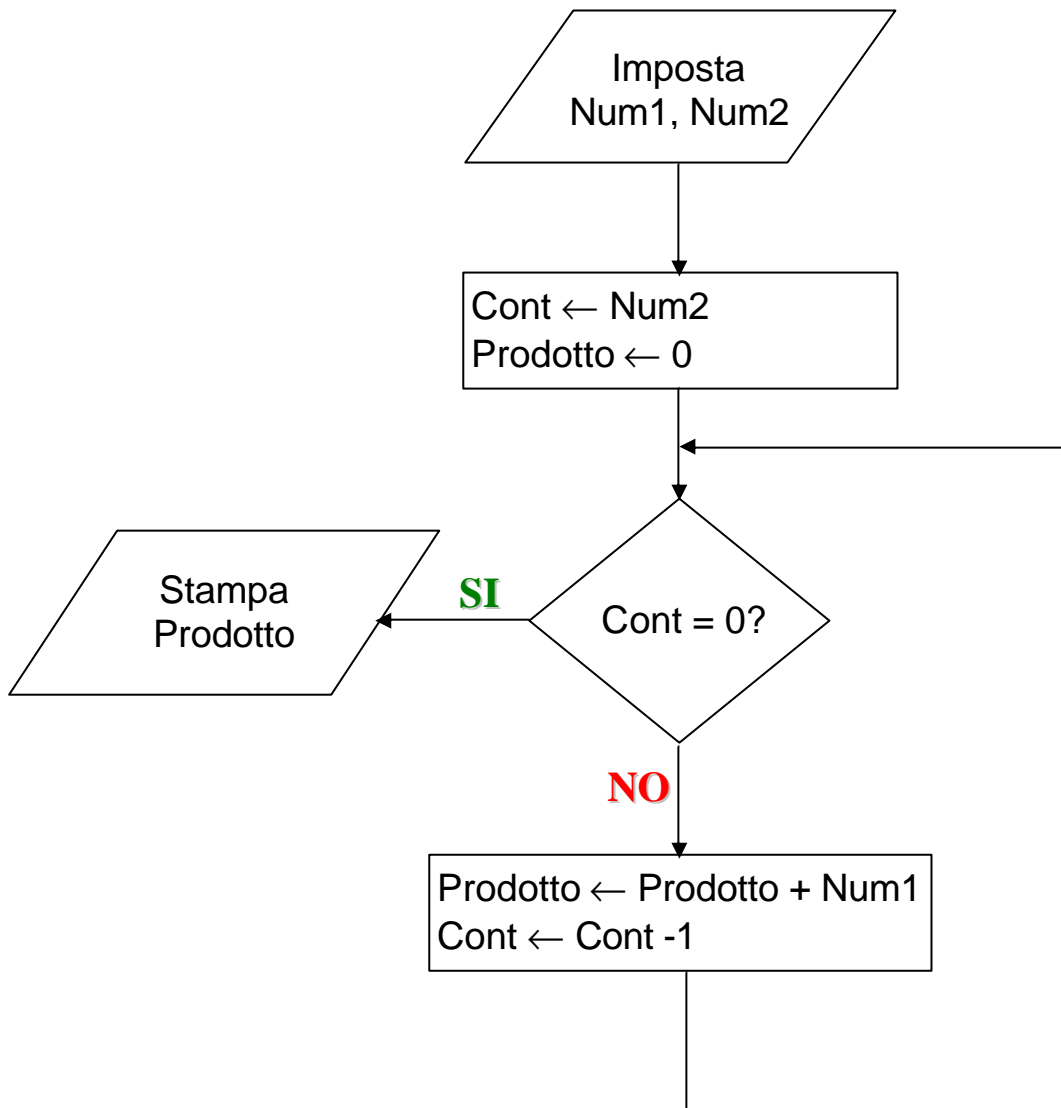


Esercizi di algoritmica

Esercizio I

Moltiplicazione di due numeri tramite somme ripetute

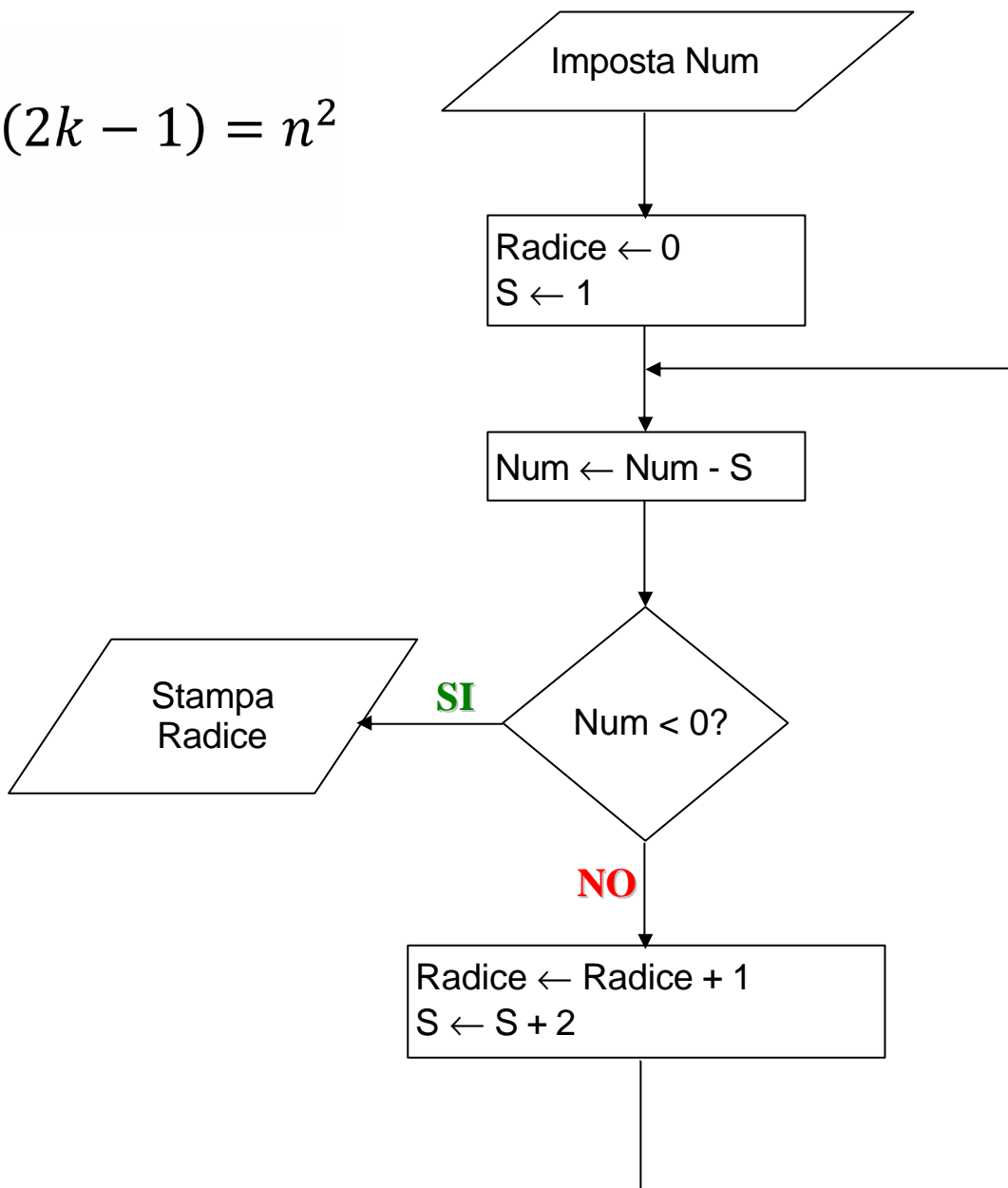
$$12 \cdot 3 = 12 + 12 + 12$$



Esercizio II

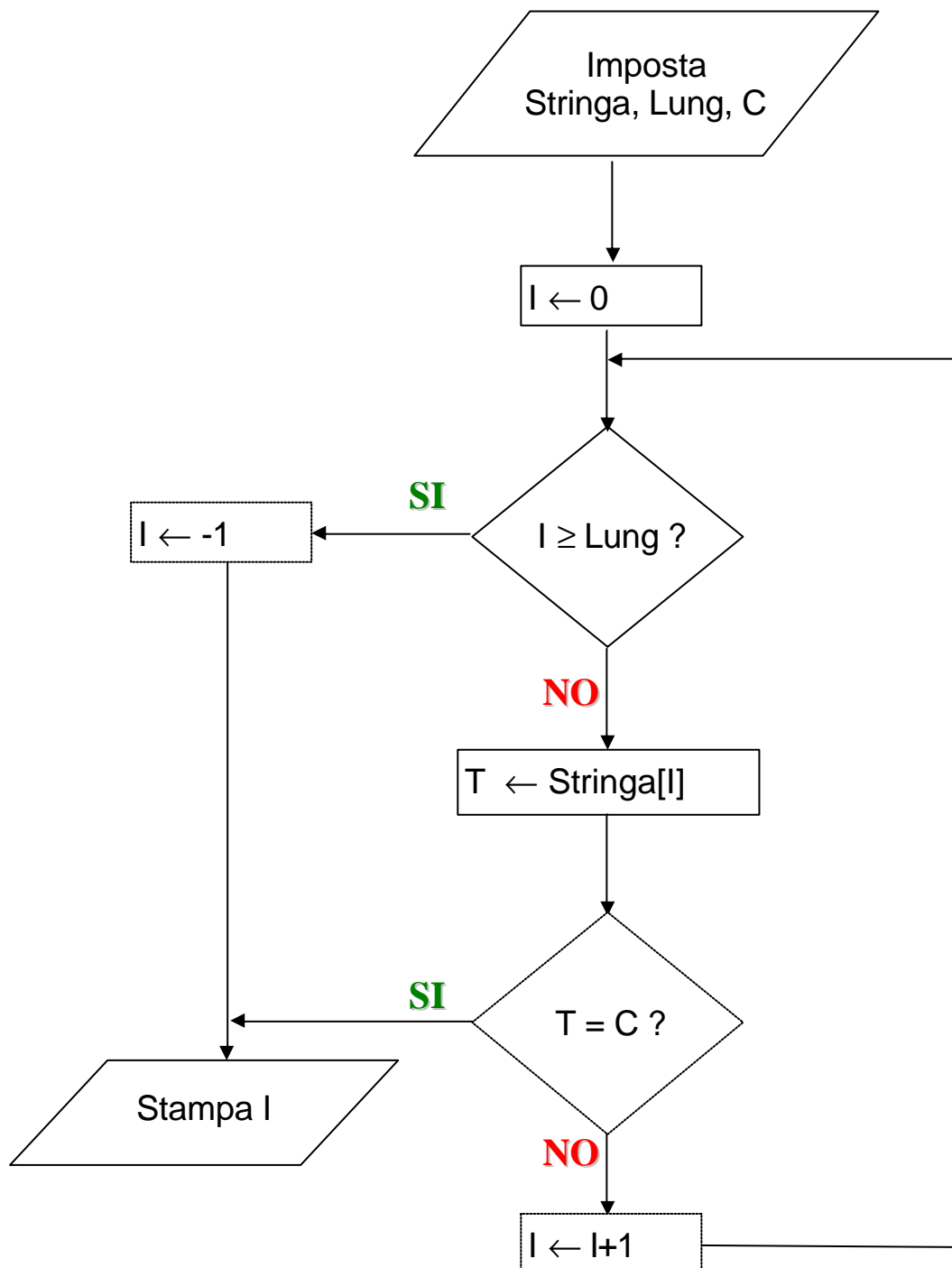
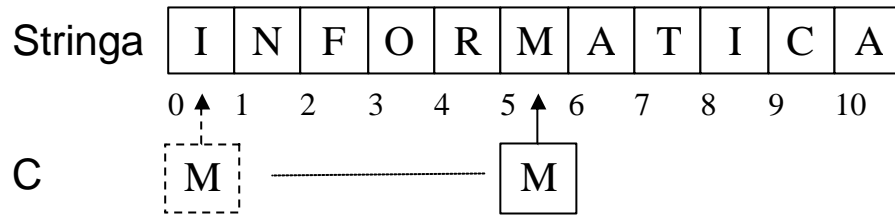
Estrazione di radice intera

$$\sum_{k=1}^n (2k - 1) = n^2$$



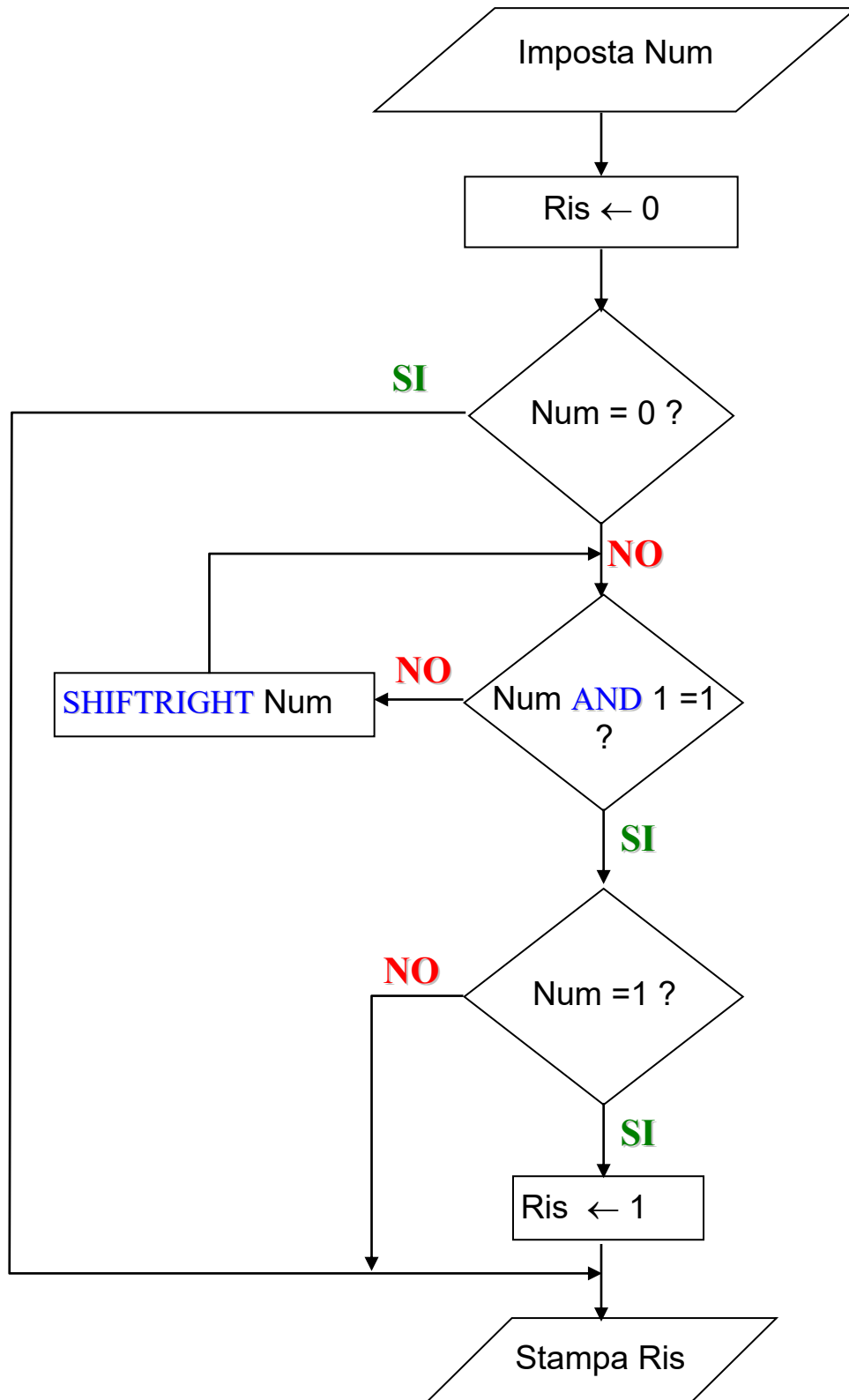
Esercizio III

Ricerca di un carattere in una stringa



Esercizio IV

Verificare se un numero è una potenza di 2 (Se si stampa 1, altrimenti 0)



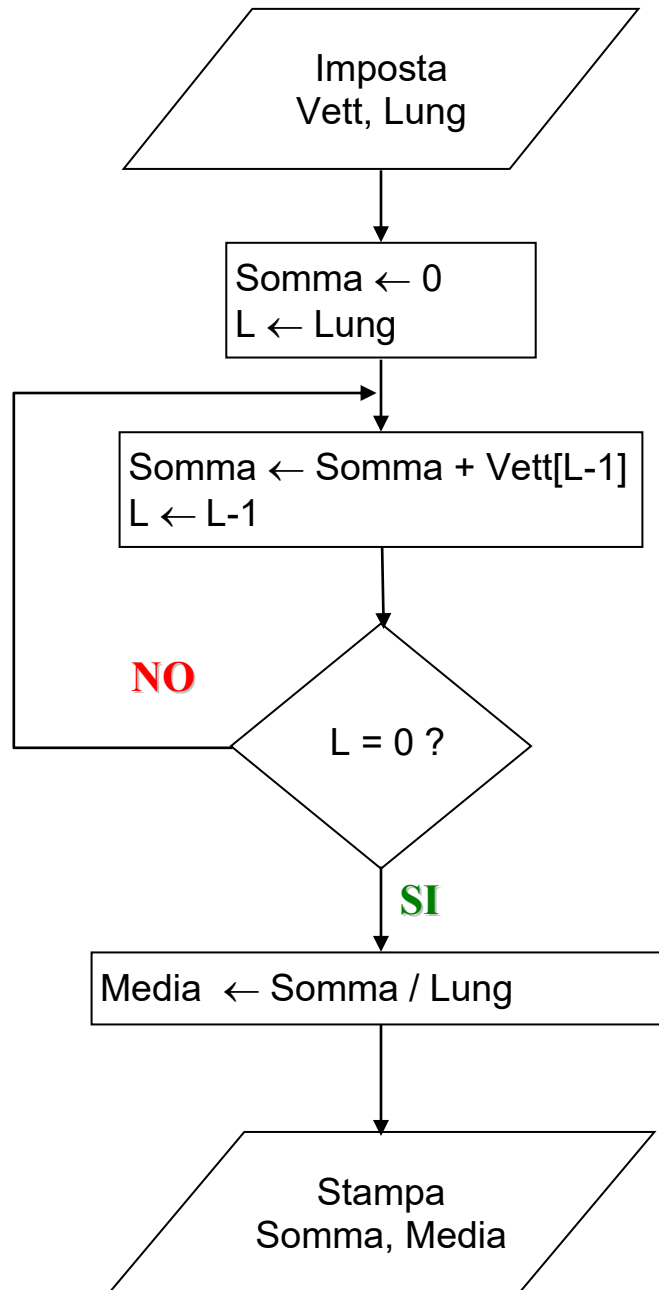
Esercizio V

Somma e media degli elementi in un vettore

Lung=11

Vett

1	3	5	-7	4	-9	12	-1	0	-12	23
0	1	2	3	4	5	6	7	8	9	10



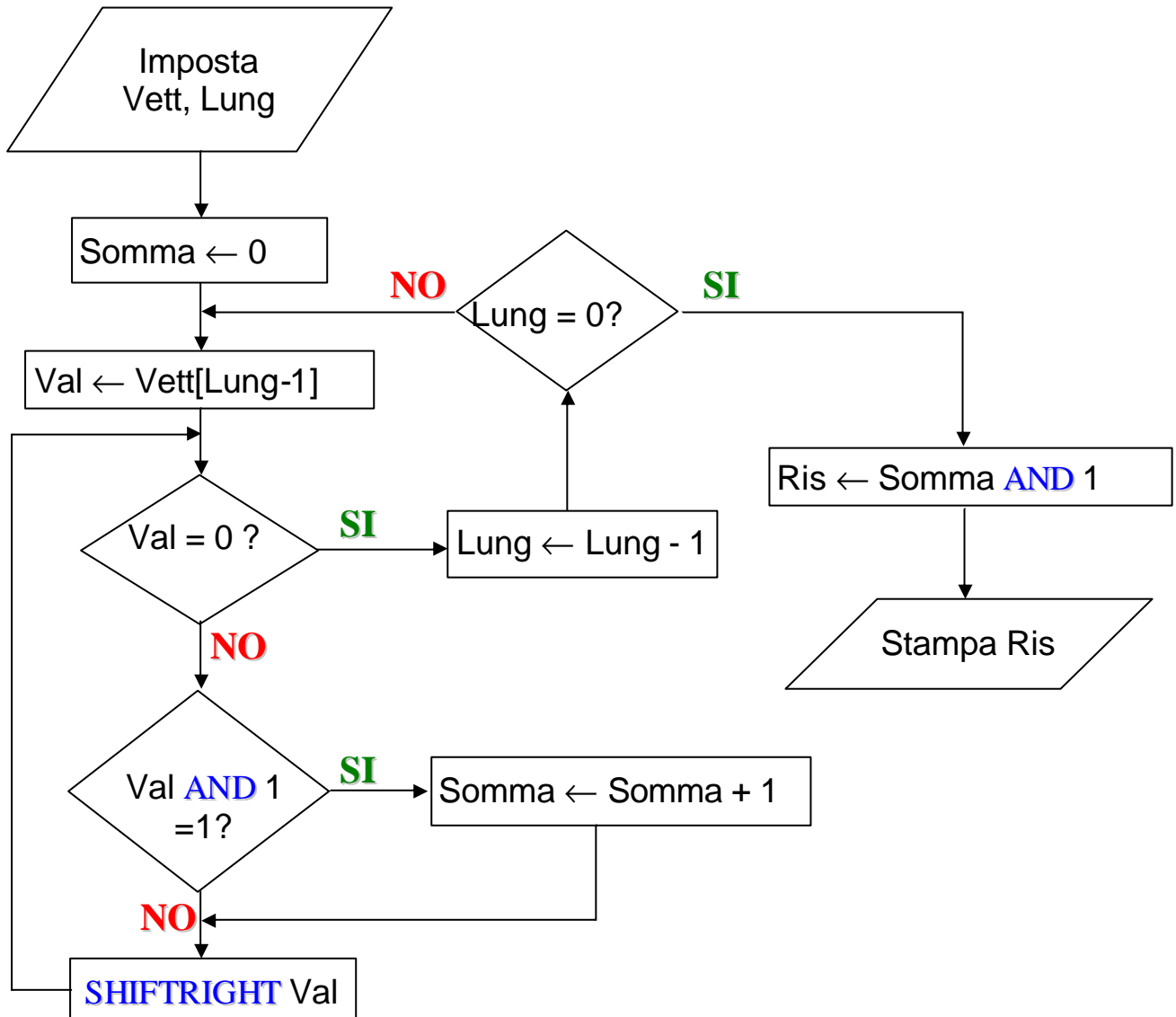
Esercizio VI

Parità di un vettore di byte assumendo che il vettore contenga sempre almeno un elemento

10100111	10101101	10110100	00011001	00000000
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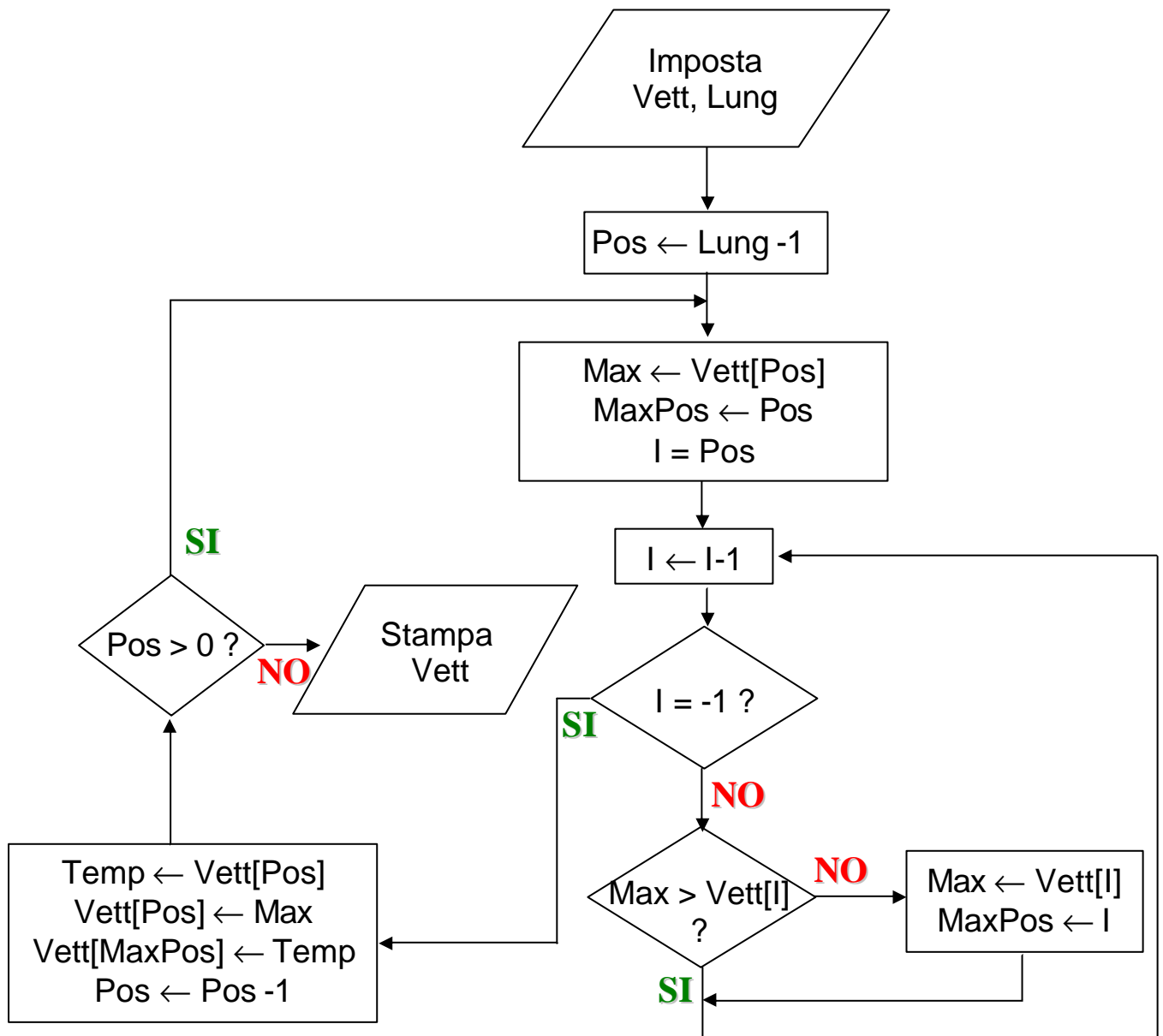
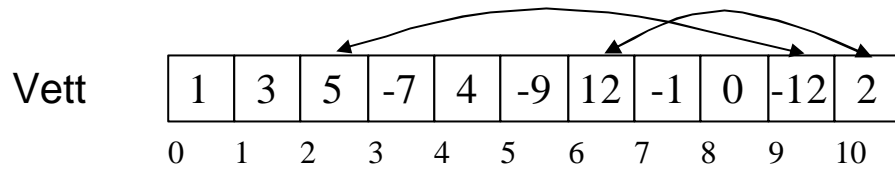
0 1 2 3 4

= 1



Esercizio VII

Ordinamento "ingenuo" di un vettore

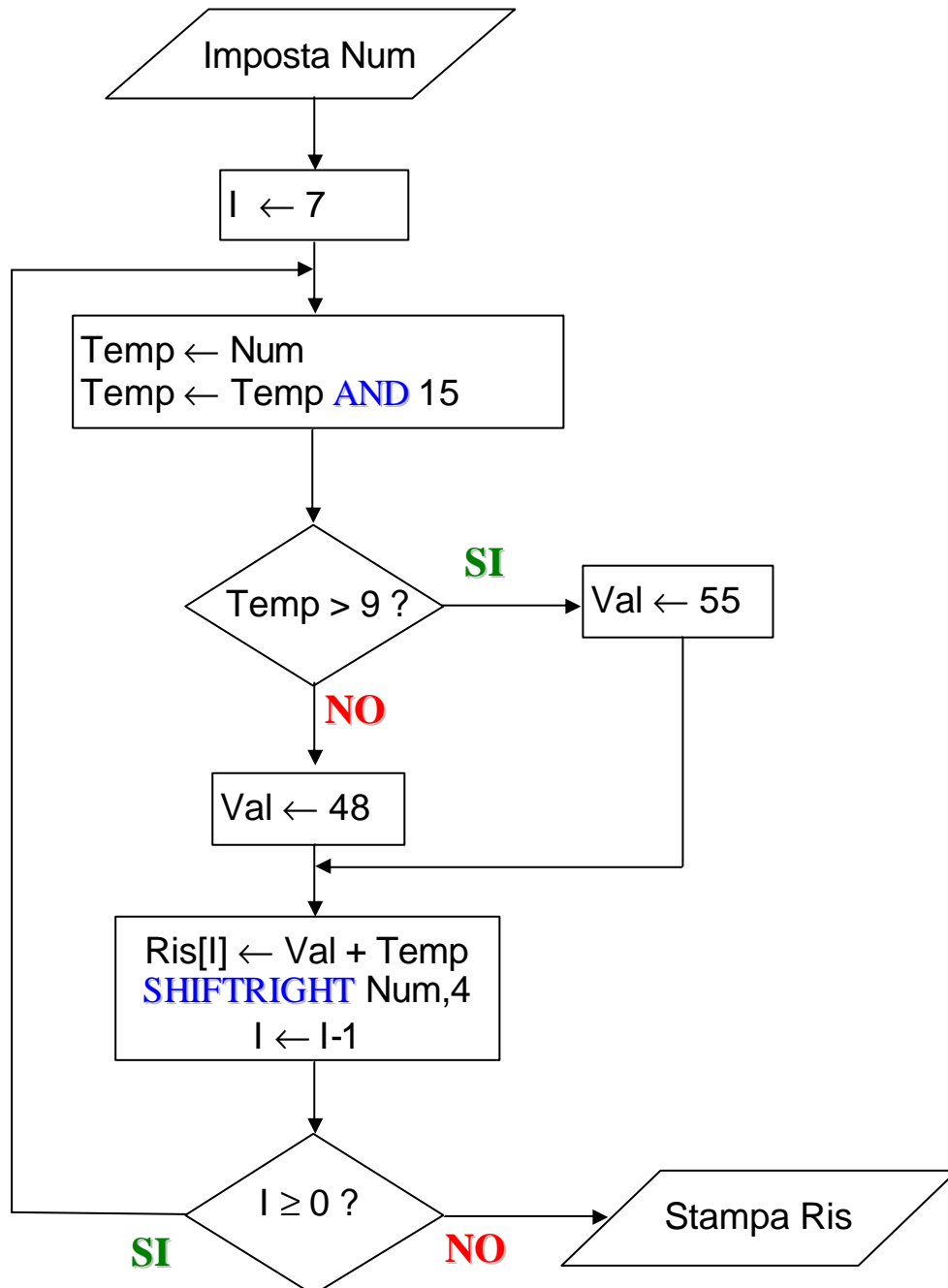


Esercizio VIII

Conversione di un numero binario a 32 bit in esadecimale (codifica mediante stringa)

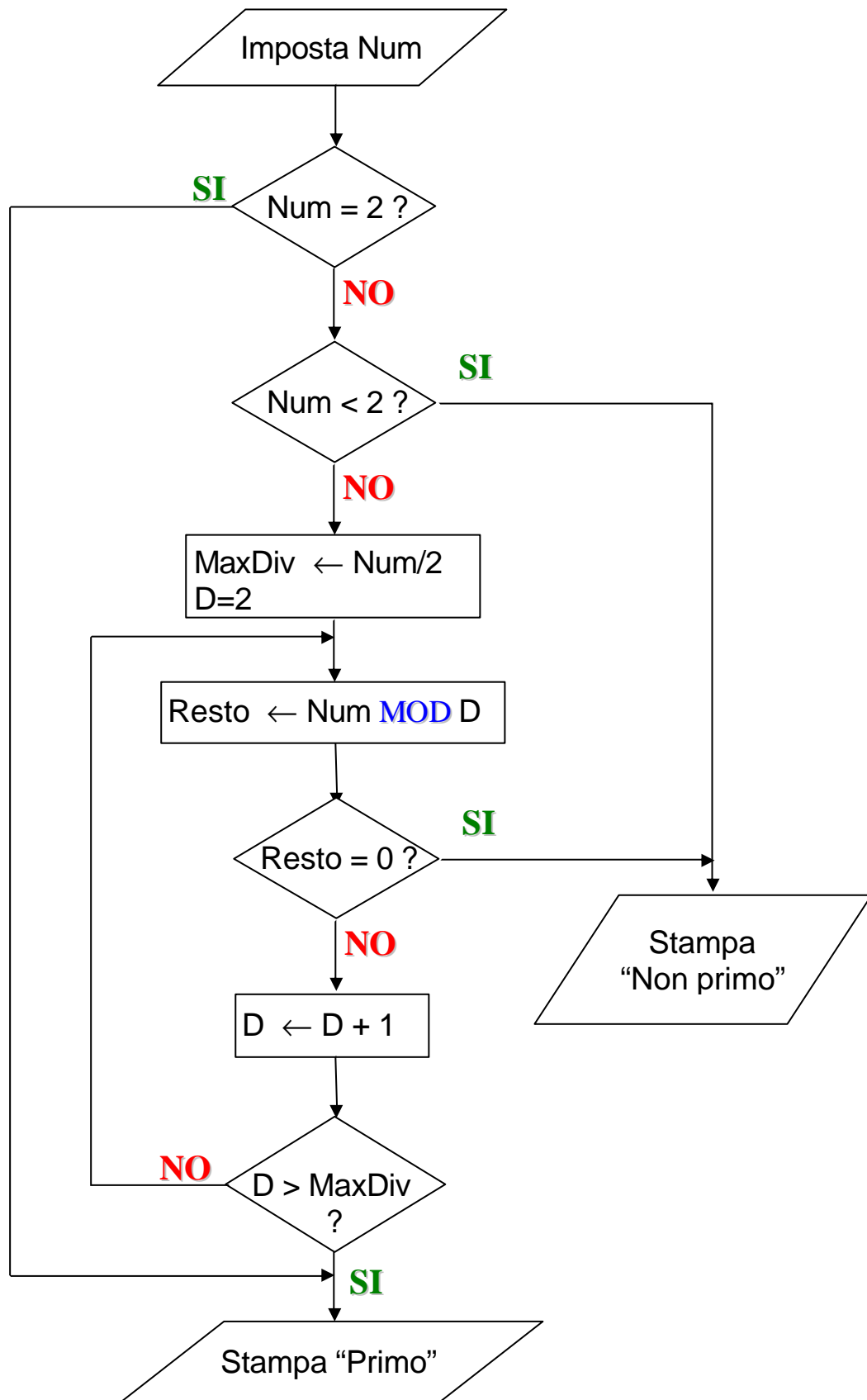
$0...01100111100101001 = ...1100\ 1111\ 0010\ 1001 =$

0	0	0	0	C	F	2	9
0	1	2	3	4	5	6	7



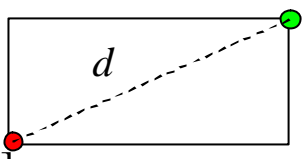
Esercizio IX

Determinare se un numero è primo



Esercizio X

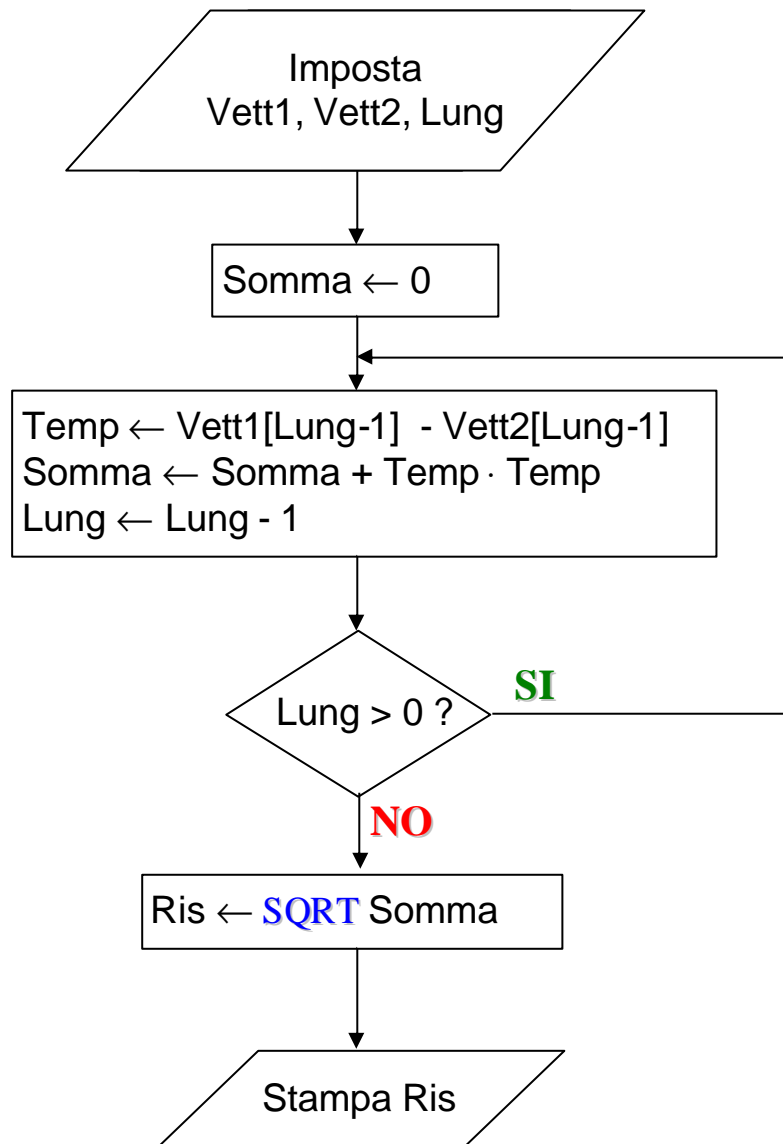
Calcolo della distanza euclidea tra due vettori



$Vett_1 = [x_1, y_1]$

$Vett_2 = [x_2, y_2]$

$$d = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$



ATTENZIONE: Richiede l'utilizzo del coprocessore matematico