Modele matematice – P2 :

a)

$inloc(l1_1, l1_2.., l1_n, el, l2_1, l2_2.., l2_m) = \{$ [], daca $l1 = \emptyset$

$\qquad\qquad\qquad l2_1, l2_2.., l2_m \oplus inloc(l1_2.., l1_n, el, l2_1, l2_2.., l2_m)$, daca $l1_1 = el$

$\qquad\qquad\qquad l1_1 \oplus inloc(l1_2.., l1_n, el, l2_1, l2_2.., l2_m)$, altfel

$\qquad\qquad\qquad \}$

$inloc([1, 2, 1, 3, 1, 4], 1, [10, 11], X) \rightarrow X = [10, 11, 2, 10, 11, 3, 10, 11, 4]$

$inloc([1, 2, 1, 3, 1, 4], 1, [10, 11], X) =$

$\qquad\qquad = inloc([2, 1, 3, 1, 4], 1, [10, 11], [10, 11]) =$

$\qquad\qquad = inloc([1, 3, 1, 4], 1, [10, 11], [10, 11, 2]) =$

$\qquad\qquad = inloc([3, 1, 4], 1, [10, 11], [10, 11, 2, 10, 11]) =$

$\qquad\qquad = inloc([1, 4], 1, [10, 11], [10, 11, 2, 10, 11, 3]) =$

$\qquad\qquad = inloc([4], 1, [10, 11], [10, 11, 2, 10, 11, 3, 10, 11]) =$

$\qquad\qquad = inloc([], 1, [10, 11], [10, 11, 2, 10, 11, 3, 10, 11, 4]) \rightarrow$

$\qquad\qquad \rightarrow [10, 11, 2, 10, 11, 3, 10, 11, 4]$

b)

$inlocSubliste(l1_1, l1_2.., l1_n, l2_1, l2_2.., l2_m) = \{$ [], daca $l1 = \emptyset$

$\qquad\qquad\qquad l1 \oplus inlocSubliste(l1_2.., l1_n, l2_1, l2_2.., l2_m)$, daca $l1_1$ nu este lista

$\qquad\qquad\qquad inloc(l1_1, el, l2_1, l2_2.., l2_m, []) \oplus inlocSubliste(l1_2.., l1_n,$
$l2_1, l2_2.., l2_m, rez)$, unde r este rezultatul: $inloc(l1_1, el, l2_1, l2_2.., l2_m, r)$, $l1_1$ este lista iar el este primul element din $l1_1$

$\qquad\qquad\qquad \}$

$inlocSubliste([1, [4, 1, 4], 3, 6, [7, 10, 1, 3, 9], 5, [1, 1, 1], 7], [11, 11], R) \Rightarrow R = [1, [11, 11, 1, 11, 11], 3, 6,$
$[11, 11, 10, 1, 3, 9], 5, [11\ 11\ 11\ 11\ 11\ 11], 7]$

$inlocSubliste([1, [4, 1, 4], 3, 6, [7, 10, 1, 3, 9], 5, [1, 1, 1], 7], [11, 11], []) =$

$\qquad = inlocSubliste([[4, 1, 4], 3, 6, [7, 10, 1, 3, 9], 5, [1, 1, 1], 7], [11, 11], [1]) =$

$\qquad = inloc([4, 1, 4], 4, [11, 11], Rez) \rightarrow Rez = [11, 11, 1, 11, 11]$

$\qquad inlocSubliste([3, 6, [7, 10, 1, 3, 9], 5, [1, 1, 1], 7], [11, 11], [1, [11, 11, 1, 11, 11]]) =$

= inlocSubliste([6, [7, 10, 1, 3, 9], 5, [1, 1, 1], 7], [11, 11], [1, [11, 11, 1, 11, 11], 3]) =

= inlocSubliste([[7, 10, 1, 3, 9], 5, [1, 1, 1], 7], [11, 11], [1, [11, 11, 1, 11, 11], 3, 6]) =

= inloc([7, 10, 1, 3, 9], 7, [11, 11], Rez) -> Rez = [11, 10, 1, 3, 9]

inlocSubliste([5, [1, 1, 1], 7], [11, 11], [1, [11, 11, 1, 11, 11], 3, 6, [11, 10, 1, 3, 9]]) =

= inlocSubliste([[1, 1, 1], 7], [11, 11], [1, [11, 11, 1, 11, 11], 3, 6, [11, 10, 1, 3, 9], 5] =

= inloc([1, 1, 1], 1, [11, 11], Rez) -> Rez = [11, 11, 11, 11, 11, 11]

inlocSubliste([7], [11, 11], [1, [11, 11, 1, 11, 11], 3, 6, [11, 10, 1, 3, 9], 5, [11, 11, 11, 11, 11, 11]])=

= inlocSubliste([],[11, 11], [1,[11, 11, 1, 11, 11],3,6,[11, 10, 1, 3, 9],5,[11, 11, 11, 11, 11, 11],7])->

-> [1,[11, 11, 1, 11, 11],3,6,[11, 10, 1, 3, 9],5,[11, 11, 11, 11, 11, 11],7]