

5. gaia 4. ARIKETA

a) Ekuazio-biderko espezifikazioa:

⊗ Eragiketaren mota:

negatiborik :: (Int) → Bool

⊗ Eragiketa definitzen duten ekuazioak:

negatiborik ([]) = False (1)

negatiborik (x:s)

| $x < 0$ = True (2)

| otherwise = negatiborik (s) (3)

b) to funtzioaren ekuazio-biderko espezifikazioa:

⊗ Eragiketaren mota:

to :: (Int, Int) → Int

⊗ Eragiketa definitzen duten ekuazioak:

to ([], []) = [] (4)

to ([], s)

| not hutsa-da(s) && not negatiborik(s) = -1:leh(s):to([], hond(s)) (5)

| otherwise = error "Elementu negatiboak dituen zerrenda." (6)

to (x:r, [])

| not hutsa-da(x:r) && not negatiborik(x:r) = [x:-2:to(r, [])] (7)

| otherwise = error "Elementu negatiboak dituen zerrenda." (8)

to (x:r, s)

| negatiborik(x:r) || negatiborik(s) = error "Elementu negatiboak dituen zerrenda." (9)

| otherwise

= [x:leh(s):to(r, hond(s))] (10)

c) adibidea paratu

-2-

$$to([8,4], [0,2,5,6]) =$$

$$to(8:4:[], 0:2:5:6:[]) \stackrel{(10)}{=} \quad x=8; r=4:[]; s=0:2:5:6:[]$$

$$leh(s)=0; hond(s)=2:5:6:[]$$

$$= 8:0:to(4:[], 2:5:6:[]) \stackrel{(10)}{=} \quad x=4; r=[]; s=2:5:6:[]$$

$$leh(s)=2; hond(s)=5:6:[]$$

$$= 8:0:4:2:to([], 5:6:[]) \stackrel{(5)}{=} \quad s=5:6:[]$$

$$leh(s)=5; hond(s)=6:[]$$

$$= 8:0:4:2:-1:5:to([], 6:[]) \stackrel{(5)}{=} \quad s=6:[]$$

$$leh(s)=6; hond(s)=[]$$

$$= 8:0:4:2:-1:5:-1:6:to([], []) \stackrel{(4)}{=}$$

$$= 8:0:4:2:-1:5:-1:6:[] = [8,0,4,2,-1,5,-1,6]$$