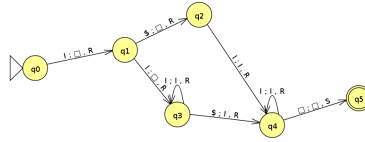# Practica3

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1 Define the TM solution of exercise 3.4 of the problem list and test its correct behaviour.

2 Define a recursive function for the sum of three values.

Suma3n: $N^A \longrightarrow N$
$Suma3n(x, y, z) = x + y + z;$

$Suma3 = \langle \pi_1^1 | succesor_4 \rangle where$
$succesor_4 : N_4 \longrightarrow n$
$succesor_4 : (x, y, z, t) = t + 1;$
$sucessor_4 = \sigma(\pi_4^4)$

$Suma3n = \langle \pi_1^1 | \sigma(\pi_4^4) \rangle$

3 Implement a WHILE program that computes the sum of three values. You must use an auxiliary variable that accumulates the result of the sum.

Q: (3,3,s) s: while X2 != 0 do X1 := X1 + 1; X2 := X2 - 1 od; while X3 != 0 do X1 := X1 + 1; X3 := X3 - 1 od; X1 := X1